

SUPPLEMENT.

The Mining Journal, RAILWAY AND COMMERCIAL GAZETTE:

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LONDON, SATURDAY, JUNE 5, 1880.

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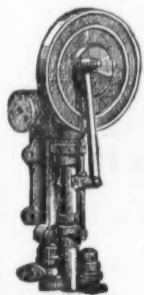
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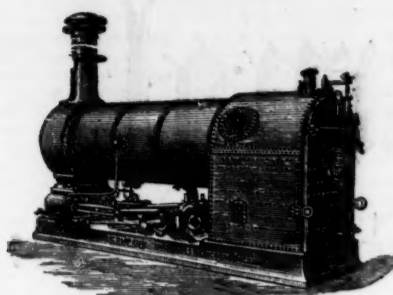
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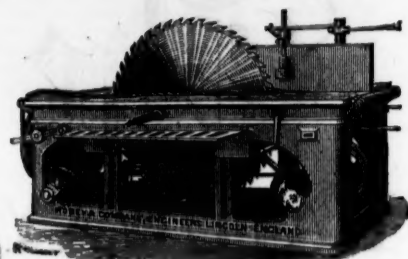
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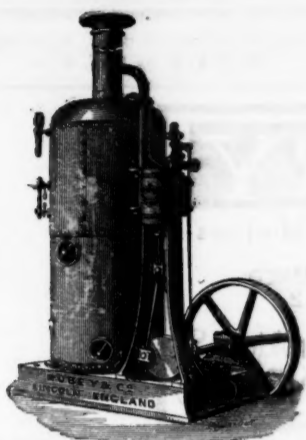
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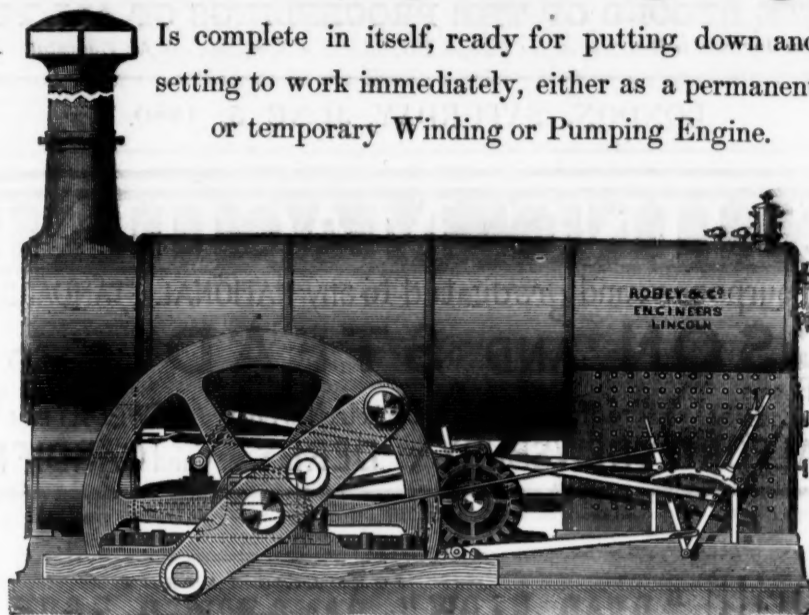
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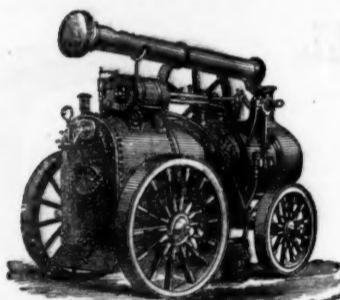
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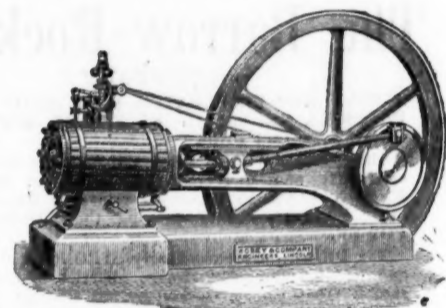
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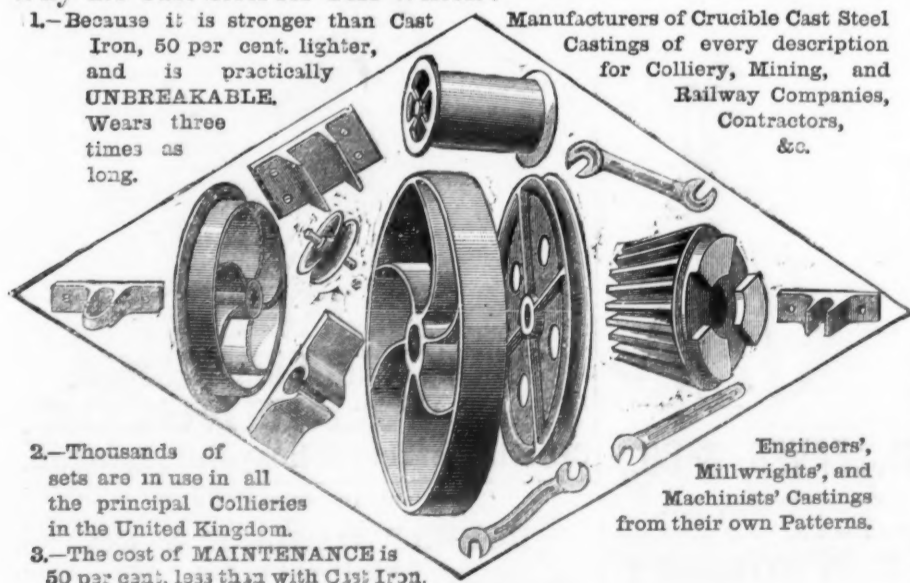
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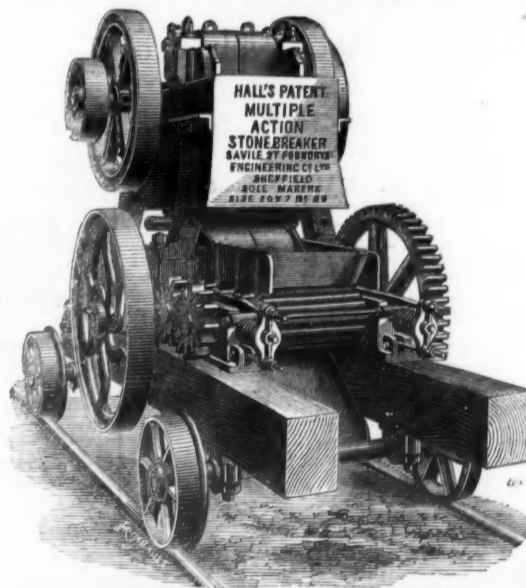
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Original Correspondence.

HAND-POWER ROCK DRILLS.

SIR,—May I beg you to insert the following reply to Messrs. Jordan, Son, and Meihle's letter, which appeared in last week's Journal. I had nothing whatever to do with the insertion of the description of my patent, which figured in the *Mining Journal* of May 22. I have not sought, therefore, to enter into a discussion with Messrs. Jordan and Co. as to the merits of my improvements, but, since they state that the description in question is that of their own machine, I must declare, most emphatically, that with the exception of the cylinder my drill entirely differs from theirs in construction, for I have—

- 1.—Entirely changed the stand.
- 2.—Constructed the machine so as to be able to put thereon an automatic feed, and have put on the same.
- 3.—Changed the system of rotary motion; given the bit.
- 4.—Adopted a totally different means of advancing and withdrawing the bit.

In fact, I have only made use of Messrs. Jordan's cylinder, which I consider an excellent one. The cam movement for raising the piston is used in America. I use it in common with Messrs. Jordan. I desire to remain on the best of terms with Messrs. Jordan and Co., but I object to having these radical modifications called "slight alterations."—*Paris, May 31.* C. W. BURTON.

ON ENGINE AND BOILER INSURANCE.

SIR,—Considering the great danger attending the use of boilers in ironworks, arising either from the hazardous character of the type of boiler used, or from the mode in which the heat from the furnaces is applied to them, it may well form a subject of investigation whether the use of such types of boiler should not be prohibited, and safety of working is to be sacrificed to economy of space or convenience of erection when these boilers are selected. The explosion of what is called a "Rastrick" boiler on the 15 ult., at Birchills-hall Ironworks, near Walsall, resulting in the death of 25 persons, will, no doubt, lead to an investigation of this subject, whether boilers of such dangerous tendencies as that alluded to, and others of similar design, should be permitted to be used in close proximity to a hive of workers. The exploded boiler referred to was said to be 10 ft. 2 in. in diameter, 26 ft. in height in the shell, the ends hemispherical. The shell was enclosed by an annular flue of brickwork at its lower part. A cross internal flue at a certain height on each side of the boiler conveyed the heat from the outside of the boiler. These internal flues united at the centre of the shell, whence the heat was carried by a central tube, 4 ft. 1 in. diam., down through the bottom of the boiler, and thence to the chimney. The "Rastrick" boiler at Birchills-hall Ironworks received part of the heat from four iron furnaces, the intense heat from these furnaces impinging on the shell of the boiler at two or more different points not only causes a severe action and wasting of the material of the shell, but also great risk should a failure in the feed of water ever occur. The thickness of the plates of the shell and of the downcomer flue in the centre was 7-16 in., those in the bottom end being 1/2 in. in thickness. And, as the water-gauge and pressure-gauge were both placed at a considerable height on the boiler, out of sight of the attendant, any defect in the feeding of the boiler was the more likely to take place.

The group of boilers—of which this was one—had been inspected by a Manchester company since November, 1877, and, moreover were accepted for insurance by the same company on May 5 last. Frequently when boilers are proposed for insurance they are found on examination to be in a bad condition; in some cases the proposals are declined, on account of the great risk which would be incurred by a company undertaking to insure them. In other cases the proposals are deferred until the requisite alterations had been made.

According to one authority (the Engine and Boiler Insurance Company) the number of boiler explosions in 1879 was 46, causing the loss of 41 lives. This includes the explosion of 10 kitchen boilers, causing 5 deaths. The number of explosions at ironworks is set down at 12, causing 14 deaths; the loss of life at ironworks is, therefore, 29 per cent. of the whole loss.

The Engine and Boiler Insurance Company insure engines against breakage as well as boilers from damage by explosion, collapse of flues, &c. They consider it necessary to have every boiler thoroughly examined annually, and previous to inspection that it be thoroughly cleaned, internally and externally, soot and dirt swept out of the flues, and timely notice given to the inspector. This company's operations are directed chiefly to the insurance of engines against damage from breaking down. The engines are indicated and inspected periodically by experienced officers, at intervals of three to four months, a report being sent after each inspection to the owner or owners pointing out defects, and giving advice as to rectifying them. In the case of an annual thorough examination of an engine insured the cylinder cover and foot-valve box cover are required to be taken off, the piston and air-pump bucket to be taken out, and the crank pedestal and beam pedestal caps should be removed before the inspector arrives.

A large proportion of the engines proposed to this company during last year have been accepted; others have not been accepted, owing to their being of insufficient strength, or very much out of repair. In each case of the latter class a report was sent to the owner indicating the alterations required, in order to render them fit for acceptance. In some instances the advice has been attended to, and the engines have been insured. It is found that a large proportion of the breakages of engines are purely accidental, or arise from carelessness of the attendants. The company pays for all such damages to the engines insured.

The breakages of insured engines are thus classified:—Accidental causes, 49 per cent.; negligent attendance, 14 per cent.; ordinary wear and old flaws, 23 per cent.; weakness of construction and defective construction, 14 per cent. Illustrations of each class of accident are given. In the first the fly-wheel connected to a pair of compound horizontal engines flew to pieces. The fly-wheel was strong, and well put together. The accident appears to have been owing to the very high speed of the engine and fly-wheel, causing the latter to fly to pieces. One person was killed and two were injured by this accident, and great damage to property resulted from it. The second case, a pair of 20-in. horizontal engines, 4-ft. stroke, non-condensing pressure of steam 70 lbs., going 66 revolutions per minute, broke down owing to the cotter which secured the expansion valve to the spindle coming out, and the expansion valve came off. The result of this was the crank of the first engine, a cast-iron disc, broke into three pieces. One of these struck the fly-wheel and broke one of the arms. One of the cylinder covers was broken, besides the valve gear and other parts being bent and broken.

The third case, a pair of horizontal compound engines, with a spur fly-wheel 16 1/2 ft. diameter, made in eight segments, with teeth on the circumference 11 in. broad, 3 1/2 in. pitch. This wheel broke down, five arms and five segments being broken; little damage was done otherwise. The wheel was of ample strength; the engine was only moving slowly. This accident was probably caused by a piece of iron getting between the teeth of the wheel and pinion.

From negligence of attendants, in the first case one of the bolts came out of the piston, and coming in contact with the cylinder cover in the up stroke broke the cover, rings, and spiral. The bolt was corroded, and seemed not to have been examined for some time. From the presence of acids these bolts are liable to be corroded; they should be examined once in three months, as well as the air-pump buckets and foot valves. In the second case the two main shafts of an engine broke. The shafts were supported by end bearings 7 feet apart, and also at the middle, where fly-wheels were fixed, and where they broke. On examination afterwards the brass step of the middle bearing was completely worn through, and the pedestal partially worn, thus throwing the weight on the end supports, which increased the strain on the shafts. The middle bearings had evidently not been examined for a long time, the result being the breaking of the two shafts.

From old defects or flaws, in the first case, the main shaft of a large beam engine gave way in the neck at the crank end. The

shaft of wrought-iron weighed 53 cwt., with 13-in. necks. The engineman noting the engine running under speed, and finding the crank pin and crank pedestal brasses hot, stopped the engine. On removing the pedestal cup a fracture 5 in. deep was found in the neck, extending laterally, and seemed to be an old fracture. In the second case the crank pin of a horizontal condensing engine broke, resulting in the breaking of the cylinder cover, piston, crosshead, and other parts. The crank pin was of steel, and after the accident an old crack was discovered in the crank-pin. Another engine broke down from the same cause—old fractures in the crank-pin, causing the breaking of beam, connecting rod, cylinder, cover, and other parts.

An important part of the Engine and Boiler Insurance Company's business consists in taking indicator diagrams and reporting on engines, and it will be acknowledged that information of this kind is most valuable to the owners of engines, especially when it proceeds from men of such large experience.

NOBEL'S DYNAMITE IN JAPAN.

SIR,—In the *Mining Journal* of May 29 a paragraph appears under the above heading. The misleading tendency of the paragraph referred to is my only reason for drawing the attention of your readers to it. Two-thirds of the accidents happen through sheer carelessness, and a paragraph of the nature of the one referred to might cause workmen to handle dynamite carelessly.

From the remarks made by Mr. Reid it would appear that dynamite is one of the safest explosives in use. I feel sure that many of the accidents that occur with dynamite would be prevented if the dynamite agents were more open and candid with the consumers, and point out the dangers to which it exposes those who use it. Mr. A. Nobel carefully cautions consumers, and points out most unreservedly where the dangers lie. The following words are copied from the printed instructions sent out by the Dynamite Company upon each packet, from which the reader may draw his own conclusion:—

INSTRUCTIONS.

- "1.—This dynamite may not be thawed or tempered for use by any other artificial means than by means of warm water, and then only at a safe distance from every magazine, dwelling-house, factory, &c.
- "2.—This dynamite may not be used in any place in such a way as to endanger the public safety."

Thus even the person who thaws it is not free from danger. Your readers will clearly see from the instructions above given that the patentee does not consider it one of the safest blasting powders known, and honestly tells the public so.

The paragraph referred to states that a fire was kindled and a 5-lb. packet of dynamite was set on fire without an explosion. Mr. Reid may try this once too often. Mr. Downie, the late respected manager of the Dynamite Company, had the impression that it could be set on fire without danger, and tried the experiment on the beach at Crookhaven, in Ireland, or somewhere in the district—it exploded, and lifted him off the ground, and threw him 20 feet into the sea, from whence he was taken blind, deaf, and insensible, and died in three weeks afterwards. Such is the uncertainty of dynamite that you never know when you are safe, and it is very wrong for the agents not to point out the dangers to consumers.

I notice an advertisement in some journal where it states that dynamite has been proved the safest and best blasting powder known for tree roots. This is the way that accidents occur, and they have but themselves to blame for misrepresenting the true nature of such a dangerous explosive, which I am sure neither the patentee nor the directors would wish them to do. The numerous accidents that take place is a direct contradiction to the statements made by some of their agents.

It is yet fresh in the memory of the public the result of the dreadful accident that took place at Burnbank, Hamilton, in Scotland, when six men were killed, from the explosion of some dynamite which was thrown aside as useless, and the explosion appears to have taken place when no one was near it. Only in March last some men were killed on the Arbroath and Montrose Railway by simply having the dynamite cartridges in their pockets to thaw ready for use.

It is, perhaps, not generally known that carrying dynamite cartridges in the pockets is most dangerous, as the nitroglycerine exudes from the pulverised earth and enters the system. Many other cases could be given to prove the danger of carelessly handling it, and ought to be a warning to careless miners and others who use it recklessly. If the agents were to act as open and candid in pointing out the dangers of dynamite as Mr. Nobel does there would be fewer accidents. Through the unintentional misrepresentation of the late general manager of the Dynamite Company of the safety of it I very foolishly, on one occasion, placed a cartridge on the bar before a strong fire, with the intention of thawing it, but fortunately for myself and others took it away before it was properly thawed, or the result might have been disastrous.

Those who read the papers regularly have little difficulty in believing the danger in recklessly handling an explosive so dangerous as dynamite.

A CONSTANT READER.

THE TECOMA MINING COMPANY.

SIR,—I am glad to hear that there is a prospect of the Tecoma Mine being reworked, and I am only surprised that such a good property has been left idle for so long a period. There is no doubt the Tecoma Company acquired one of the best mining properties in North America, but it has been kicked about like a football, and served in the same manner as many other mines on that continent. But I have reason to believe that the corner has been turned, and we may hear of the Tecoma Company again looking up, and I should not be surprised if the shares turn out to be among the best prizes of this year. I recommend my brother shareholders to stick to their holdings, for we shall hear something of Tecoma ere long as will be a great surprise for them.—*June 1.* A SHAREHOLDER.

THE BRAZILIAN GOLD MINE COMPANY.

SIR,—In support of the letter of "Another Shareholder," in last week's Journal, I was one of the privileged who attended the private meeting to hear Mr. Richards, the newly-appointed manager of the Santa Barbara Mines, speak as to the capacity and value of this property. At this meeting I asked Mr. Richards his opinion of the statements in the prospectus, in answer to which I am pleased to say I elicited straightforward and satisfactory replies. There was a skeleton map of the locality in the room, showing the relative position of the surrounding gold mines. By the assistance of this Mr. Richards was able to give the gentlemen present considerable local and practical information, and supported his opinion by his experience as a resident in Brazil, where he had been connected with gold mining, and said he believed this company possessed a property situated in the centre of an acknowledged gold-bearing stratification of great importance. Referring especially to the jacotinga formation, its position, and the chances of being readily opened in an auriferous section, he considered it would only require a short time to drive the level into the hill and intersect this formation, the auriferous quality of which was proverbial.

F. G.

RICHMOND MINING COMPANY.

SIR,—Will you kindly allow me, as a shareholder in the above, to express my surprise at the stifling of all discussion by the Chairman of the meeting upon the important question of cost of working and management? That the Richmond is a most valuable mine, and economically conducted would yield to its shareholders double the return that it now does, seems clear if the statement of accounts of the Eureka Mine is reliable; but it is manifestly difficult, if not impossible, for shareholders to criticise at this distance from the seat of operations separate items of expenditure, hence Mr. Hopkins, the chairman of the company, very naturally expressed the wish to compare our own cost with the Eureka. Mr. Broughton is evidently of a different opinion, and does not even deem Mr. Chynoweth's question as to the royalty worth his notice; but if the 2000l. per year paid for this is anything more than a sham I think it will be more in accordance with straightforward and honourable conduct to make

it clear, for I can assure him there are many who are anxious to hear a satisfactory reason given for that expenditure.

A SHAREHOLDER.

CORNISH TIN MINES, AND THE FUTURE OF TIN.

SIR,—The current price of tin is 30l. less than its upward range a few months ago only, and within 20l. of the greatest depression and which closed up so many and rendered profitless all but a few tin mines throughout the whole county of Cornwall. The four-monthly audit at Tincroft shows sales of 179 tons of black tin at an average of 45l. a ton—9167l. This is a depreciation of 12l. on the average of the previous four months. A sale of 40 tons since shows a further decline of 2l. 10s. a ton, averaging the prices tendered by the six competing companies, though the price obtained was 43l. 5s., being an excess of 17s. 6d. by the manager's own company over the other five competitors. At the present price, say 42l. 10s., the same quantity of ore will realise 450l. less for the current four months, and taking the costs as the same at the last audit the gains at the next balance may be estimated at 600l., instead of 1057l. as shown for the past four months, or say 1800l. for the year ending May, 1881. Thus we may calculate on no dividend until the close of 1881, as a debit balance of 2851l. has to be cleared off. Yet the market value is 100,000l. Such is the confidence of mining authorities and mining adventurers in the future of tin that with an advance of metallic tin to 100l. a ton they would hope for 150l., and in no sense daunted, they fully believe that every fall in price is ephemeral, and all but a robbery of the just rights of the hard-working, industrious, and sanguine miner. The depression of tin from 150l. to 51l. a ton arose solely from inflated prices in the years 1872 and 1873, and the upward advance last autumn to 100l. was effected by the creation of a syndicate of merchants and bankers who bought up the stocks and supplies and, as a matter of course, realised at the flow, and then saddled speculators who encountered the ebb with their accumulations, while they retired with the gains and no responsibilities.

The creation at this time, as rumoured or suggested, of a fresh syndicate by those interested in and associated with Cornish tin mines would have the like effect of stiffening prices; but I do not think that speculators, merchants, and consumers would take the accumulated stocks at the high and inflated prices, as the members' position would be an isolated one, and the smelters, joined with the keen dealers and merchants allied with the tin trade, would know precisely the amount of tin stocked, and act in direct opposition to the interests of the syndicate whenever realisation is attempted. There is a wide difference between a syndicate of Cornish miners and a syndicate of London merchants and bankers. The former will find itself outside of the channels of consumption while the latter possesses the key to the whole trade.

The aspect of the tin market is far from buoyant, and I apprehend farther depreciation rather than early advance of prices. The only secure basis upon which tin can honestly advance is increased consumption and diminished supplies, while an important element exists in the adoption and growing use of boring-drills and machinery. For no one can gainsay that the rapidly exhaustive application of machinery for hand labour must materially lessen prospective value of tin mines. If the work done in five years by hand labour can be achieved in two years by drill machinery, it follows that the lodes can be opened and wrought in two-fifths the time formerly required. Again, the supply of tin ores will be largely augmented, which will have a tendency to keep down prices; hence increased consumption can alone give stability and advanced quotations to market values.

Mildmay Chambers, Bishopsgate, June 3. R. TREDINICK,
Consulting Mining Engineer.

TIN WARRANTS VERSUS SELLING TIN BY TICKET.

SIR,—The question of selling tin by ticket is one which has been so frequently raised and so freely discussed in the Journal that there would really appear to be very little to say about it, more especially as the conclusion, if any, which has been arrived at is that stated by your Cornish Correspondent in his last week's letter. The only advantage of the ticketing system is that for a time it would introduce an apparent element of competition. He continues, that the appearance of the thing without the reality would, however, do very little good, and hitherto the smelters have shown so little disposition to independent action, and of late such exceptional timidity, that we do not for one moment imagine that on the one hand there would be any competition worthy of the name, or on the other that they would not take very good care to secure themselves by a wide margin against any fluctuation of the market between the day of offer and the day of absolute sale. We do not say of necessity ticketing would make matters worse than they now are (though it might even have that effect), but that it would seem to provide a remedy where it really afforded no relief, and thus stand in the way of any real improvement.

So long as miners are dependent on their sales of mineral for carrying on the mines (and certainly mining would not be worth carrying on under any other conditions) so long will both miners and smelters be incompetent to command prices suitable to their desire. Tincroft has been prominent in their endeavours to manipulate the market in order to secure a better price for their tin, but the advantage has always been extremely shortlived. Capt. Teague will, no doubt, recollect, if the fact be not known to your correspondent, that for several years an arrangement existed with Mr. J. G. Tyrie, under which there was always a blank tender form in the company's office when the tenders from the other smelters came in, and the London manager (Mr. Dunsford, if my memory serves me) had standing orders to fill in Mr. Tyrie's tender at 1s. per ton (or about that amount) in excess of the highest tender received from his rivals in the trade. Mr. Tyrie being chairman of the company, and having a fair smelter's connection, the scheme worked well until the secret became known out of the office, as it did long before the officials were aware of the fact. Then came the retribution. The independent smelters bid high, until they had so overstocked Mr. Tyrie that he could take no more Tincroft tin, and then bid low, and obtained the tin at so low a price that Mr. Tyrie could not get rid of an ounce of his tin except at a heavy loss. The result is well known.

Your correspondent remarks that Capt. James proposed the formation of a syndicate to buy up the whole stock of tin and control the market, and he adds—a bold and for the time possibly a successful scheme. Now, if this be your correspondent's opinion, let him ask anyone actually dealing on the metal market whether there is not already a syndicate—famously known as Strauss's syndicate—established for the same purpose. It was freely rumoured less than twelve months since that this syndicate had control of 3,000,000l. worth of tin, and although this figure is no doubt an exaggeration, that such a syndicate holding an enormous stock existed, and probably still exists, is beyond question. And the greatest evil of this is that this secreted tin does not appear in the regular statistics of stocks, but is freely used to create artificial fluctuations, such as your correspondent deprecates. It was stated that Strauss's syndicate had got tin in at a very low price, and that the parcels which they have "let slide" since August last have much further lowered the average price at which they hold the still enormous balance. What, then, I should like to know, could James's syndicate do, coming in as they would have to come in on the basis of 78l. per ton for ingots. The James's syndicate would simply play into the hands of Strauss's syndicate, or if the two syndicates attempted to work together and share the plunder the result would be that the Netherlands, East Indian, and Australian producers would be able to step in and take a good profit for a time until the two syndicates collapsed, and threw such an enormous amount of secreted stock upon the market that tin mining would be almost extinguished. What miners require is not the formation but the ruin of all syndicates, and this can be best effected not by the miners selling tin ores by ticket, but by sending its produce into the market not as black tin but as metallic tin, and taking the responsibility on themselves.

This need not involve the multiplication of smelting works or injury to existing smelters. All that is required is that the miners should be paid in kind instead of in money. If Tincroft, or any other mine, have 100 tons of black tin to sell containing 61 tons of metallic tin, let the smelter taking it deliver in return 60 tons of ingots represented by tin warrants, the 1 ton retained representing the returning charges. The money for carrying on the mines could

be quite as readily raised on the tin warrants as upon ore bills, and it would be permanently advantageous to all concerned. Your correspondent says that freedom of trade—like from artificial monopolies and from artificial fluctuations—is the one thing it needs for its prosperous relations; and though combined action may be needful and advantageous in stamping out abuses, it can never be of long duration, which in the long run the laws of supply and demand must rule. It might help on a good result if our leading mines were to restrict their sales, and "stacking" were practised upon a tolerably large scale; but there are difficulties in the way here also, and unless our mines are prepared to make a bold step, and smelt and sell for themselves, they must be content to have patience. I believe that in principle he is perfectly correct, but that the multiplication of smelting works which he suggests would be expensive, dangerous, and unsatisfactory. The warrants would, of course, be placed under the same control as the pig-iron warrants of the North, and would speedily become as readily negotiable. **CAPITALIST.**

Truro, June 1.

LEAD MINE ENTERPRISE IN LLANARMON.

SIR,—In my last letter I promised to give your readers No. 2 report on Lady Ann Lead Mines, but in consequence of the turn of affairs in this locality, and of this property in particular, it is considered advisable for the present not to give No. 2 report in these communications. It will, however, I expect, make its appearance shortly from another source, accompanied most likely with reports from other equally eminent mining engineers and mine managers.

I may here remark, in connection with the Lady Ann Lead Mines, that it is now ascertained that the total length of known proved lodes running through this valuable sett is over a mile in length, and all in virgin ground. There are also several shafts sunk of considerable value as to their position with respect to the main lodes, and particularly the Pant-y-Gwlanod lode, and which will very readily and at small cost be made available for the further development of this very valuable sett.

I have observed for some weeks past the report of your excellent correspondent of Chester, Mr. Francis Francis, in which he has noticed the Lady Ann Mines, and that he has had a few shares to offer in it at 10s. each. In last Saturday's *Mining Journal* I see he mentions that steps are being taken to form this property into a limited liability company, and does not quote the price per share. It may be that the shares and their price are intended to be modified. If he would allow me to make a suggestion which may be worth his attention, and those with whom he is acting, I shall be pleased to do so. It is this:—Put the price of a share at 1s. in the contemplated new company, and let the payments be 2s. 6d. per share on application, and 2s. 6d. per share on allotment, the remaining 15s. to be called up in small amounts at reasonable intervals between each call. As a new feature, and to encourage steady, practical, sober workmen, I would reserve a certain number of shares in the new company to be paid to them as bonus payments on work done, such shares to receive dividend upon the same amounts as are paid by subscribing shareholders. Such an arrangement would, I think, be a stimulus to steady, sober, careful, hardworking miners to do the very best in every respect for the company. I merely throw this out as a hint to be worked out, or otherwise, as those most interested may think fit. I may just say that I approve of such an arrangement as tending to the good of everyone concerned.

The progress of the work and the splendid appearances in the 30 yards level on the Westminster vein in the Lady Ann sett are of the most encouraging character, and whether the property be formed into a company under limited liability, or worked by the "present too exclusive proprietary," it is now considered a certainty that the present driving will catch the run of ore passed in the shaft in sinking about 15 yards down from surface, at no great distance in the level from the point the men are now working upon. The value of this property is increasing very much every week, and, as has been stated before, is looked upon as the coming prize in this district for 1880. As Mr. Francis, of Chester, seems to be well posted up in it, your readers will do well to consult him, and I feel sure he will be able to give satisfactory answers to any enquiries. **ENQUIRER.**

May 31.

MINE MANAGEMENT AND OFFICES—LONDON OR LOCAL.

SIR,—When your Correspondent who furnishes you with the Report from Cornwall gives us the benefit of early news or facts relating to mining in the Western Counties we are thankful to him for his information; but he can hardly expect that his remarks of last week, advocating the abolition of London offices, will meet with general acceptance, or pass unnoticed and unchallenged. A mere statement that London offices are not in favour in Cornwall is no argument why Cornish mines worked by "out-adventurers" capital, or mainly so, should place their management in local hands. That Cornish mines worked by local adventurers, pure and simple with local capital, should have their management in any place they think fit is only fair and reasonable. But where—as is the case in numerous Cornish mines—the majority of the shareholders live in or near the Metropolis, or, at any rate, out of Cornwall, it is only natural that they should require an office nearer (say) than in some town situated between Plymouth and Penzance.

Your Correspondent lays it down as an axiom that "the management of a mine to be efficient must be local;" but in the same sentence disproves his own proposition in alluding to the prosperous condition of the Devon Consols Mine, the management of which is in London.

Connected with the official business of London mining work for nearly 25 years I can with confidence say that Cornwall has little cause to find fault with the mining offices of London. It is no small sum that London has sent into Cornwall for the support of Cornish mining enterprise during the past quarter of a century, and it is a question whether there are not far more engines now standing in Cornwall, erected and paid for from London offices by "out-adventurers," than there are engines standing and erected by purely local enterprise. The lords, the merchants, and the miners have equally benefited from the London offices and from the support the Metropolis has given to Cornish mining.

Whatever objection the Cornish adventurers may have to the London offices it is true that the London shareholders have good grounds to be cautious of local management. I do not by any means affirm that there are no well-managed local offices in Cornwall; but I do say that the manner in which too many Cornish accounts are rendered is not an example to be imitated, and would scarcely pass muster in London. In my business experience I have constructed balance-sheets and accounts for upwards of 50 mining companies (British and Foreign) having London offices, and audited perhaps as many more; and in all instances clear statements of the companies' position have been exhibited, and statements of liabilities and assets set forth. Can Cornish offices say as much? What a London office will lay before its meetings as a matter of course has had in some instances in Cornwall to be drawn out by persuasion or compulsion. Has not the production under pressure of the local banker's pass-book at a Cornish mine account before now fallen like a thunderbolt on the meeting when the amount of the overdraft became known? It is a fact that numbers of London capitalists fight shy of Cornish mines with local management, from the knowledge the accounts rendered to shareholders, as a rule, give no clear information as to a mine's true indebtedness, and that the offices are too far away for them to obtain information. Even in these days of "extension of railway accommodation" a prospective "out-adventurer" is likely to pause and think twice ere he invests his money in a mine in which if he wishes to see the management or get personal information he must give up two days of his time, and spend about 5l. of his money in a railway ticket, to obtain what he may require.

Your Correspondent certainly reminds us of the "telegraphic facilities" of the times, but these facilities tell rather in favour of the London offices than otherwise. Having at present before me the share lists of three companies, vigorously working mines in Cornwall, but whose office is in London, I have taken the trouble to analyse their contents, and obtain the following result. I abstain from mentioning any names, because I am writing purely on principle, and

refrain as far as possible from referring by name either to particular companies or persons:—

	No. of shareholders.	No. of shares.	Where the shares are held:			
			London.	Cornwall.	Other parts.	
Mine 1.....	133	6000	2670	340	2990	
" 2.....	100	6000	3730	275	2005	
" 3.....	50	7257	5575	Nil	1682	

Why, in the name of common sense, should either of these companies have their office in Cornwall? I do not know that these lists differ very much from the lists of other Cornish mines having London offices, although there may be exceptions. Will some correspondent, by way of contrast, give us an analysis of some lists of mines having local management?

I must not trespass too much on your space, or I might mention many benefits shareholders derive from having their offices in a central spot like London—not the least being the opportunity given to your reporter to be present at mine meetings, whereby a record is made and circulated in all parts of the kingdom.

Before I conclude I would ask how far from a mine an office may be to be considered local? I have known mines in the West of Cornwall to have their office at Plymouth. Would that be local; or would Redruth be considered local for a mine working (say) at St. Just? To be truly local the office, I take it, should be on the mine, and nowhere else. Then, if Cornish mine offices are to be local all other mine offices, by the same argument, must also be local, and we may presume that when the London managements have become convinced of the errors of their present evil ways to find the office of the St. John del Rey Mine removing to Minas Geraes, in Brazil, and the management of Richmond migrating to Eureka, in the United States. I am merely pushing the argument to its logical conclusion.—*London, June 3.* **E. ASHMEAD.**

MINING IN NORTH WALES—SOUTH VAN.

SIR,—In making a tour through North Wales I was naturally drawn towards the strata of the country. Several good lodes were shown me, but one sett (which has been abandoned) appeared to me one of the best which could be found in any district, it is the South Van, in the district of the celebrated Van Mine. I have much pleasure in informing you that this mine is now reopened, from which great and good profits must result. Very shortly I will report to you the progress made.—*Llanidloes, June 3.* **THOMAS MANN.**

ANOMALIES OF THE MINING MARKET.

SIR,—In looking through last Saturday's *Journal* I was attracted by a letter from a "Permanent Shareholder" in Panulicillo, complaining of the want of confidence expressed by his fellow shareholders in their property, and prosecuting my study of the same issue I was in like manner attracted by a report of the Devon Consols meeting, which to my mind was of a most gratifying and assuring character; the dividend declared and the business-like policy adopted in the declaration of such dividends indicate a sound basis, with a clear and profitable future for the shareholders of Devon Consols. If the whole of the available profit for the last half-year had been distributed in dividends, then a doubt might have arisen as to the object of the directors in so acting, but instead of that they have thought it better to keep a substantial balance in hand (representing another dividend of over 10s. a share), a step which must commend itself to the judgment of all true business men.

In considering both of these communications, and in going through the list of the various mining companies, and comparing the prices at which the several concerns were selling, I could not help thinking that these prices were influenced by something other than true genuine worth. Take Devon Great Consols, for instance. We find that after a thorough organisation it comes forth to the investing public as an old established genuine concern, with as bright an outlook as ever it had, having declared dividends for the last half-year equal to 13 or 14 pence per annum on the present price of shares, and leaving a balance in reserve equal to another 4 pence, or, in other words, showing a clear dividend for the last half-year on the present price of shares after the rate of 18 pence per annum. And yet these shares, showing such dividends, and with a certain prospect of doubling their profits within the next 12 months or so, are to be picked up at 13s. per share.

What a contrast between the price of mining and bank shares. Why if Devon Consols, instead of being a mine, were by some fortuitous circumstance transformed to a Devon Consolidated Bank, and showing such profits, the shares would be estimated and selling at least at from 40s. to 50s. per share. And in the same way, looking at Panulicillo, I agree with your correspondent that the returns and prospects of the company are such as to merit a much higher estimate of its value.

It seems to me there is too much of a speculative spirit abroad. When we find such mines as East Van, West Van, Van Consols, and other satellites of a similar character brought out as second Vans, &c., in embryo, and producing such disappointing results, it is not to be wondered at that the cautious careful investor "fights shy" of anything appertaining to mining as being unsafe and to be carefully avoided. And yet, if that careful investor chooses to look into and examine for himself the various concerns he may pick out investments in mining which will bring him in double, aye ten times, the amount he could realise from any other kind of investment. **OBSERVER.**

[For remainder of Original Correspondence see this day's *Journal*.]

SHORT NOTICES ON IRISH MINES.

BY WILLIAM THOMAS.

Sheep's Head, a bold promontory 600 ft. high above the sea level, forms the north entrance to Dunmanus Bay, and the south entrance to Bantry Bay; its extreme point, facing the Atlantic Ocean, is over 30 miles from the town of Bantry, which is situated at the head of that beautiful bay. The peninsula formed by the Sheep's Head, known as "Meintervarra," divides Bantry Bay from Dunmanus Bay, and the centre mountain range in some places is over 1000 ft. high above the sea level, the view from which is probably unrivalled in the United Kingdom. At the north side of Sheep's Head there is a belt of copper lodes skirting the cliffs on the south shore of Bantry Bay, and slight trials were made on them about 1846 at Gurtavallig, Killeen, and Glennaulin. Passing east from Glennaulin, the lodes strike more inland, but no trials have been made on them until we come to Coomkeen, about a mile north from the village of Durras, and 20 miles east from Sheep's Head. Gurtavallig Mine was first opened under my superintendence in 1846. In the cliffs the east and west lodes are intersected by a large caunter lode. Shallow and deep adit levels were driven some distance on the course of the lodes, which contained good gossan, quartz, and yellow copper ore, and during these preliminary operations I raised and sold 90 tons of copper ore. The principal shareholders were Irish, but the great famine of 1847 put an end to the operations in the mine. I believe some trials were since made, but the mine is now idle. The property belongs to Mr. Congreve. Killeen Mine is four miles east of Gurtavallig, and situated also on the south shore of Bantry Bay. At the time I was beginning to work Gurtavallig Mine a lode was discovered in a ravine formed by a mountain torrent in Killeen, and on making further explorations we discovered six parallel east and west copper lodes, and also a great caunter lode, which intersects the east and west lodes, and runs into a mountain 1000 ft. high. An adit level was begun on the caunter with a view of driving into the mountain and intersecting all the lodes. The first lode cut contained splendid gossan and munda, coated with black oxide of copper, yellow copper ore, &c. In sinking 14 yards from surface hundreds of tons of munda were raised and sold, and many tons of copper ore. In one part of the shaft, in a course of munda, there was a vugh or cavern, the sides all coated with black oxide of copper, sufficiently large to contain 10 or 12 men. The sett extends across the mountain from Bantry Bay to Dunmanus Bay, and contains 1500 acres. I am informed an agreement for a lease for 31 years has been obtained, at a rent of 30s. a year, "free of royalty." Glennaulin Mine adjoins Killeen Mine to the east, and in the cove several lodes are seen cropping out in the cliffs. Slight trials were made many years ago, and

several tons of rich copper ore raised and sold. A great cross-course runs from the cove into the mountain, 1000 ft. high, on which an adit may be driven, and numerous lodes intersected at but little cost. Coomkeen is situated in a valley, in which a belt of many lodes have been discovered by costeaning, and containing grey copper ore, carbonate of copper, &c. This extensive property belongs to Lord Bandon.

To the east of Coomkeen is Clovea, the extensive property of Lord Charles Pelham Clinton. All the Coomkeen lodes run into Clovea, where in a trial pit several tons of copper ore were raised, and on the back of a lode in a bog I have seen a quantity of carbonate of copper and native copper. The north part of this property borders on a decidedly argentiferous district, and I have no doubt but valuable lodes of galena pass through it.

REPORT FROM CORNWALL.

June 3.—It is quite hopeless to attempt to speculate upon the conditions of the tin market and its possible immediate course, and it is, therefore, idle to make the attempt. Even the old Transatlantic saying "Never prophesy unless you are sure" seems at fault now, for under the old regime, with the tin statistics before you, there was reason to believe you were sure, and now they seem to work out contrariwise—the better the figures the worse the result. Of course it must all come right in the end, but when is the end to be? Meantime the only policy that approves itself as likely to produce satisfactory results is a policy of the hand-to-mouth order, while we wait "Micawber-like" for something to turn up, but "un-Micawber-like" in this sense, that we know there must be something in the future to reward us, and he did not.

It is, of course, early days yet to form any conclusions as to the success which is likely to attend the movement in behalf of selling tin ores by ticket, so far as actual results are obtained. Yet to us it seems clear that the figures of the recent sale of Tincroft tin point distinctly in the direction of the failure we predicted. Five firms keep together, just as they would under the old system, if, indeed, with one there might not have been a little variation. The only firm that really advances is that with which Capt. Teague is himself connected—the Penpoll. So far, therefore, the competitive element, which is the only thing that can make ticket sales an improvement on the present system, is non-existent, for the leading smelters have not been moved, and Penpoll, of course, would have offered the same price in any case. This is just what we anticipated, and to us it seems very definitely to indicate the direction in which ticketing is likely to go. It is idle to assume that the action of Penpoll will stimulate the other smelters into action unless Penpoll is prepared to deal with all the tin on the market, for that is the only contingency which could force to real competition if the other smelters are determined to keep together. All past experience is a warrant for the belief that even Penpoll, with all the weight of Capt. Teague's influence and business sagacity, would be unable to turn the tide. Tincroft would have netted the 17s. 6d. per ton advantage of the Penpoll tender, and probably something to boot, if Capt. Teague had done his own smelting on his own premises as a part of the business of the mine, and this was the innovation which we hoped he had in store when it was rumoured that Penpoll had passed into his hands. The only advantage we see in ticketing is that it indicates a practical dissatisfaction with the present intensely unsatisfactory condition of things. As such it may lead to something better, but we are afraid in no way else.

Whether we are right or wrong in our forecast will, however, be seen before long, as the smelters are prepared to make a trial of the new system. The sales are to be held fortnightly—samples being taken on the Wednesday, and the tenders given on the following Wednesday. Under these circumstances we can only hope that ticketing may have a fair trial. If there is an improvement so much the better; if not, as we have already said, something will have been done by clearing a mistaken idea out of the way.

Nothing definite has yet been announced with regard to the appointment of Dr. Foster's successor, and presumably, therefore, it is practically in the hands of the gentleman who was nominated by Sir R. Cross, unless the new Home Secretary may have seen cause to interfere. The appointment is not competitive, but whoever is appointed must establish his qualifications, so that efficiency will be secured. It is difficult to understand, however, why in this office, as in so many others, the attempt is not made to secure not merely efficiency but the greatest efficiency by throwing it, within certain reasonable limits, open.

REPORT FROM NORTHAMPTONSHIRE.

June 3.—Although considerable changes have taken place in the state of the iron trade throughout the country during the past few weeks its effect has not been at all of a marked character so far as regards Northamptonshire, isolated as it is from any great iron manufacturing centre or mining district. It has kept on the even tenor of its way; but, of course, has had to submit to a reduction in the price of iron the same as other localities. The increased production at Wellingborough in the early part of the year has been well kept up, and has gone off well, all things considered, being well adapted for rolling or foundry purposes, and a good deal has been from time to time used up at some of the South Staffordshire mills. At one time it was intended to roll it on the spot, and there still remains at a short distance from the furnaces an incomplete building, with fines, &c., where the mills were to be put down by a Staffordshire gentleman, but for some reason or other the works were left unfinished after the expenditure of a considerable sum of money. The largest output of pig, however, has been at the Glendon Works, situated about two miles to the south of Wellingborough, and close to the Finedon Station of the Midland Railway. The works belong to Messrs. Checkland and Fisher, there being five blast furnaces, the necessary material for smelting being obtained quite close at hand. The firm are also the owners of the Mapperley Colliery, at Ilkeston, in Derbyshire, whilst one member at least is interested in another coal mine in Leicestershire, which will be the nearest coal field to the Northamptonshire iron district on the Midland line. The Cransley Iron Company, near Kettering, have had two furnaces going, and the same has been the case with the Kettering Coal and Iron Company.

To the south of Wellingborough more has also been done of late, one place we believe having been set right by Mr. W. Butlin, the father of the iron trade of Northamptonshire, and who was the first to open out that vast mineral field, which is now about the third largest iron ore producing county in the kingdom. At Islip also a good deal of pig has been turned out where the works were established by Mr. Plevins, who was formerly connected with the iron and coal industries of Derbyshire. On the southern side of Northampton there has been a steady production of pig, but the principal yield lies in the opposite direction between Market Harborough and Wellingborough, and near to the former the site was marked out a few years ago for four blast-furnaces, and with the abundance of ore in the locality there is every reason to believe that many more furnaces will be built in the county should the iron trade warrant such being done. The output of pig recently has been at the rate of nearly 3000 tons a week, leaving out what has been made by the direct process at the works at Towcester, which were established by Dr. Siemens and a few other gentlemen, including Mr. Sampson Lloyd, of Birmingham. There is one great advantage in connection with the ore of Northamptonshire, and that is that most of it is raised near to the surface, so that when it is taken the land can again be made available for agricultural purposes. About one-fourth of what is raised goes into the local furnaces, and the remainder is sent into different districts, the London and North-Western and the Midland Railway Companies being the principal carriers; not so much, however, going by the former, for Derbyshire and some parts of Yorkshire take nearly the whole of the surplus. The Stanton Iron Company, who have several furnaces on the Nottingham border, raise a large tonnage on their own account for the use of those works, having a considerable staff near to Wellingborough and at Desborough, and have sent at the rate of nearly 4000 tons a week over the Midland Railway. The Glendon Company raise the stone at two places, and

would appear to consume all they raise at their own furnaces. Mr. W. Butlin, in connection with his two partners, has worked the stone most extensively close to the Midland Railway Station at Wellingborough, as well as nearer to Bedford, and also more to the north, at Ringstead. The Cransley Company are in a good position for stone, and have raised something like 2000 tons a week. Thrapstone, on the London and North-Western Railway, yields a good deal of stone, having been obtained for many years on the Arbutnot property, as well as at other points. To the south of Northampton stone is worked at Blisworth and the adjoining parish of Gayton, Easton, Neston (Towcester), and at Duston, close to the town of Northampton itself. But the great bulk of the stone is raised along the route of the Midland Railway up to Wellingborough, the Midland taking from the latter place about 7000 tons weekly, the total annual carriage being upwards of 900,000 tons—in some degree due to the moderate rate charged by the company for the carriage to Derbyshire and the North.

REPORT FROM NORTH AND SOUTH STAFFORDSHIRE.

June 3.—Furnace coal is this week reduced 1s. per ton, and slack 6d. This comes about by reason of a circular announcing such a change, issued by the agent of the Earl of Dudley, who is chairman of the Coalmasters Association in this district. His lordship's new prices for Thick coal East of Dudley are—Furnace, 9s.; steam, 8s.; lumps, 8s.; engine slack, 4s. 6d. Forge coal (heathen) is 9s., and new mine coal 8s. 6d. per ton. West of Dudley steam coal is 7s.; screenings (bright), 7s.; ditto, steam, 6s. 6d.; engine slack (best, Himley Colliery), 4s.; and ditto, ordinary, 3s. 6d. per ton. Colliers' wages will, in consequence of this drop, be reduced under the Birmingham Agreement 3d. per "day" or shift in the Thick coal, and 1d. per day in the Thin coal seams. In the Essington district, where wages are not regulated by the Birmingham Agreement, the masters will attempt a 3d. drop in measures which are pretty similar to the ordinary thin coal seams, and if they are successful wages will thereabout become 2s. 3d. per day. The reduction which has just been declared in coal brings prices down to within 1s. of the minimum which they touched all through the depression.

At the meetings of the iron trade this week the prices for native all mine hot-blast pigs were 4l. to 3l. 15s. per ton. Spring Vale forge pigs were 3l. 5s., and common cinder iron was 2l. Derbyshire pigs were quoted by agents at 2l. 12s. 6d., firm. Hematites were without business, as consumers in this district refuse to pay even the present reduced prices. These are—for Tredegar, 4l. 10s.; Blairston, 4l. 7s. 6d.; and Barrow, 4l. 12s. 6d. The blast furnace proprietors held a special meeting this afternoon in Birmingham, at which it was determined to reduce wages 10 per cent. Notices, it was stated, had already been posted at many of the works. Finished iron is without much alteration upon the week. The prices mentioned in my last report were again quoted. American buyers are in the district attempting to place hoop orders, but the price they offer is very low.

The South Staffordshire Mines Drainage Commissioners on Wednesday, in Wolverhampton, authorised the Surface Committee to expend 6000l. on surface works. A long discussion took place upon the decision which was come to by the special meeting upon the previous Wednesday to reject the proposed draft award of the arbitrators for the amalgamation of the Bilston and Tipton districts. The chairman stated the value of the voting was for the award 1290l., and against it 1011l. Some of the Commissioners suggested the calling of a meeting of the owners and occupiers in the Bilston district with a view to rescinding the decision of the special meeting, but nothing definite was done.

A novel application was heard at the Rushall Police Court on Tuesday, the Walsall Wood Colliery Company (Limited) asking an order upon the Birmingham Canal Company to provide a bridge over their canal to enable the applicants to convey the produce of their colliery to the London and North Western Railway at Pelsall. The proceedings were taken under an old Act, 5 Wm. IV., c. 34, and were admitted to be quite novel, and of great importance to the Canal Company, colliery proprietors, and others. The Bench, after a long hearing, dismissed the summons, thinking there was no necessity for the bridge within the meaning of the Act.

REPORT FROM NORTH WALES, SALOP, AND CARDIGAN.

June 3.—I am much obliged to Mr. Stringer for his invitation to the South Cambrian Mines, and I hope to avail myself of it very shortly, when I trust my visit will not be such a hurried one as on the last occasion. There are often some curious mineralogical references in the advertisements of property to be sold. In one before me, relative to the sale of some property near Llangollen, it is stated that "there is a valuable vein of lead and gold quartz under the land"—a rather rich combination, and to make the thing complete it should have been written "silver-lead." I would not mind undertaking to eat all the gold to be found in quartz veins in the Vale of Llangollen, and I do not think the amount of lead there is to be found in it would do me much harm. The property and works formerly belonging to the Patent Gunpowder Company, situated in Glyn Ceiriog, are to be sold by auction next week. This is one of the great enterprises started in the district seven years ago. The site for the works and the licence for the manufacture of the powder were obtained with difficulty, but the site is a most admirable one for the purpose, being in a recess in the mountains, with a good stream for its boundary, and a tramway within three miles. The licence was large, covering the manufacture of all sorts of explosives. The works were laid out with great skill. But the manufacture of the explosives seemed to be a failure. In cutting the water-course from the River Ceiriog to these works the workable nature of a band of greenstone was proved, and operations were commenced and a quarry opened. Paving sets are now made there by the Glyn Granite Company, and a considerable trade is done. I should like to hear of the powder works being adapted to some good and permanent manufacture.

Trade is a little better in the Ruabon colliery and fire-clay district. Mr. J. C. Edwards, of the Trefnant and Penybont Brick, Tile, and Sanitary Ware Works, is about to connect the latter works with the Great Western Railway by a branch line of the ordinary gauge instead of by the tramway, which was made only a few years ago. These works have attained to a great size and to much importance since Mr. Edwards took them. Several of the other brickworks report a revival of trade.

The freestone quarries of Cefn are doing better, and some of the collieries which have been working only half-time are now more fully employed. Mr. Wm. Hayward, of the Cilgwyn Quarry, Nantlle, who is about changing his residence, announces a sale of his Carnarvonshire property and of his household furniture. The catalogue of the latter is indicative of the wealth and taste of the owner. Mr. Hayward forms an example of what may be made of a slate quarry possessing no extraordinary advantage by the personal supervision of one of the owners. The quarry owners of the Nantlle Vale have now a scheme of their own for the drainage of the valley by the deepening of the River Llyfni. Unless this deepening begins at the sea, and is continued by a tunnel to the quarries, the latter will not be drained, and any such scheme should combine a provision for the removal of the rubbish to the seashore.

Mr. Robert Parry, the president of Slate Quarry Men's Union made some sensible remarks in his address at the annual meeting of the Union, held at Llanberis last week. He thought the men were disposed to combine to ask too much for their labour, and in this he saw one cause of the failure of slate quarry enterprises; other causes were the appointment of unsuitable persons as managers by newly-formed English companies, and that the cost of carriage from inconveniently situated quarries. Not so sensible, as it appears to me, was his advice to the men to unite their means and work quarries themselves. It is not often that workmen have the administrative and business capacity requisite for the successful conduct of great undertakings. Hence the general failure of co-operative collieries, and the like.

The Rev. John Evans, of London, has been lecturing before the district meeting of the Welsh Wesleyans at Liverpool on the "Inability and failure of Science to account for the Origin of Things."

If the lecturer were wise he would stick to his preaching. It is a mistake to pit science and religion one against the other. It is the business of science to find out the, as far as it can, origin of things, and of religion to keep things in their right place. Certainly we have found out a great deal about the origin of things since the revival of science within the last hundred years.

REPORT FROM DERBYSHIRE AND YORKSHIRE.

June 3.—Trade generally in Derbyshire is not by any means so good as it was a short time since, whilst some branches are not likely to improve. There has as yet been no falling off in the production of raw iron, but the demand is considerably below what it was earlier in the year, consumers still holding back, in expectation that prices will yet see a lower point. At the present time the rates are from about 55s. to 59s. per ton, according to quality, which shows how strong has been the reaction during the last two months. There is still, however, a strong feeling that the price will come down still lower, and large producers of plates and other descriptions of manufactured iron now merely purchase for their immediate requirements. Orders for rolled iron and foundry material of late have come but slowly to hand. In steel rails, however, there is the same activity as there has been for a considerable time past. At the collieries business has been particularly dull, and short time the rule, and is likely to be, for the summer months will in no way improve the demand for coal. Household qualities have fallen off very much from the leading collieries, whilst prices are lower than they have been during the last eight years in the London market, the heaviest supplies for which are sent from the Derbyshire mines, especially those at Clay Cross, Eckington, Blackwell, Grassmore, Pilsley, &c. The reduction of 1s. a ton made in the early part of the week by the London merchants in many instances will be followed by some reduction at the pits where there are no contracts to run, and as owners have been making no profits for some time past the look-out is anything but cheering as regards the trade of the next three months. Steam coal has gone off tolerably well, the consumption by railway companies being much larger during the summer months than in the winter, whilst the exports are also much heavier in the former. Not much is being done with Lancashire in engine fuel, whilst the trade with the West of England and the Midland Counties has declined. A large quantity of coke is now being turned out from several collieries which sell well in Sheffield and the neighbourhood, as well as in other districts, and is probably about the only thing connected with the coal trade that really pays; but, as is generally the case, the production under the circumstances may overgrow the demand, and so bring down the price.

There has been very little change in the trade of Sheffield, which is still good, if less demonstrative than it was, when prices of raw and manufactured iron and steel were spasmodic and unreliable. Since these things have settled down prices have become lower and steadier, and business on a more solid foundation. Manufacturers are nearly as well off as they were, for if they sell at so much less than they did they have been able to buy the plain material much lower. Hematite and other pig has certainly come down very much, and as to the former it has allowed the makers of Bessemer rails to sell them at 8l. per ton, instead of the fancy price of 10l. 10s. Makers of plates, sheets, bars, and ordinary merchant iron have also been able to make marked reductions, which has led to increased confidence as to the future. The mills are consequently running well, turning out large quantities of rolled iron in the shape of ship and boiler plates, sheets, telegraphic wire, bars, &c. Ordinary armour-plates appear to be rather quiet, as attention is now being directed to those made of steel and iron, for which patents have been taken out by the two great establishments—Brown's and Cammell's. Cutlery manufacturers are fairly off for business, some good orders having been received from America, Australia, and the Continent. In edge tools more is also being done, and the same may be said with respect to sheep shears, files, and saws.

The South Yorkshire coal trade is in anything but a hopeful state, whilst the future is not by any means promising. Household qualities met with a comparatively slow sale at prices that lead to a positive loss to the colliery owners. It is, therefore, probable that the wages question will before long be again brought forward, as masters are not likely to go on losing large sums of money by finding employment for their workpeople.

The men at the Monk Bretton Colliery, who have been on strike for ten months, have appealed to the public, but more especially to their fellow-miners, for increased support. There is no likelihood of their returning to work.

REPORT FROM MONMOUTHSHIRE AND SOUTH WALES.

June 3.—The passenger traffic of the Monmouthshire, London, and North-Western (Sirhowy), and Brecon and Merthyr has now been concentrated in the Central Great Western station, in High-street, Newport, and thus passengers have been enabled to do away with the inconvenience of changing stations. The old Dock-street station has been closed. That portion of the Monmouthshire Canal, too, adjoining the old dock, has been covered in, and the result is that additional railway siding accommodation has been enabled to be provided.

On Monday there was great rejoicing at Penygraig, consequent on the happy results attending the efforts of Messrs. Rowland and Williams in sinking coal at that place. No less than six seams of coal have been struck in the large new pit by the company, one being no less than 9 ft. in thickness. The workmen and their families observed the day in holiday fashion, and the juveniles had tea provided.

The case of the tinnen employed at the Worcester Tin-Plate Works, who had been summoned for lessening the make, and thus causing a loss to the employers, has again come before the Swansea Stipendiary, who adjourned his decision. The case is of some importance to the trade, and the result will be.

The Associated Coalmasters of Monmouthshire and South Wales have held a meeting, at which they protested against the Employers' Liability Bill, and resolved to petition against it as unfair to owners of mining property. Amongst the deputation who waited on Mr. Gladstone, on Wednesday, with a view of urging upon him to refer the Bill to a Select Committee, for the purpose of substituting the principle of general insurance, supposing the present law be altered, were Mr. W. T. Lewis, chairman of the South Wales Collieries Association, Mr. Archibald Hood, and Mr. Nixon.

A petition has been heard before the Master of the Rolls by the South Wales Colliery Company for the reduction of its capital. The original capital was 200,000l., in 8000 shares of 25l. each, the whole of which had been fully paid up. The proposed reduction was 5l. on each share. The application was granted.

A dividend of 4 per cent. per annum has been declared by the Glamorganshire Canal Company at their annual meeting, Mr. W. T. Crawshaw in the chair.

An interesting ceremony has just taken place at Harris's Deep Navigation Pits, Quaker's Yard, when the immense winding engines, said to be the largest in the world, were started in presence of the directors, their friends, and numerous lookers-on. The engines were erected by Messrs. Fowler, of Leeds, and on Tuesday they brought to bank their first load of coal. Miss Harris, daughter of the company's chairman, assisted in setting the ponderous machinery in motion, and another daughter "christened" the engine "The Hercules." A large party was afterwards entertained at luncheon.

The Iron and Steel Trades, as must be admitted on all hands, have undergone a serious change for the worse, and at many of the establishments in the district the want of orders has entailed a curtailment of operations. Prices have also got worse, and this state of affairs is, of course, due almost entirely to the falling off of the American demand. Still, there is one hopeful sign in the horizon of apparently coming bad times, masters are not at all anxious to enter into orders of any extent at present quotations. There are many who think that the lull is merely a temporary one, and that soon things will improve—a consummation devoutly to be wished. Vessels are by no means so well sought after to carry iron to the United States—a fact which must naturally be taken as a criterion that requirements for that quarter are being rapidly finished up. Clearances

have been large during the past week, and as usual, mainly for the United States. The enquiry for rails has been decidedly dull, while for bars there is a good demand for local requirements. Pig-iron is very quiet, and prices low.

There can be no changes noted in prices for coal, but these are firmer, and the general conviction prevails that they have reached their lowest. The pits are generally steadily employed, although wages are complained of as being low, and the output is more than equal to the demand. This latter fact accounts probably to a great extent for the continued stand still of prices. For steam coals there is a good demand, and foreign shipments are greatly increasing. House qualities are in decidedly good request for the time of year, and anthracite is fairly active. Patent fuel is still rather slow, and prices unchanged.

TRADE OF THE TYNE AND WEAR.

June 2.—The coal trade in most branches has been stronger this week, and shipments large at Tyne Dock, Northumberland Dock, on the north side of the Tyne at other points, and also on the Wear at most of the shipping places. Best steam coals are with some difficulty kept up at 10s. per ton. There is a keen competition with South Wales for the trade in Southern Europe. Shipments of steam coals have, however, improved during the past fortnight. Business is irregular and uncertain at some of the collieries. The gas coal works go on steadily, and the demand for manufacturing coal is on the whole pretty good. Considerable quantities of coke continue to be shipped; and the shipments of fire bricks and fire clay goods continue to be good. House coal works are in the worst position in the trade; house coals in the Thames have touched a price never before known—13s. per ton. A great deal has been said and written on this subject of late; no doubt the cause of the depressed state of the house coal trade is over-production. When the London trade was in the hands of the colliery owners of the Tyne and Wear good prices were obtained for this coal, but within late years the Midland coal field has been opened, and large supplies of coals are now sent by rail from this great field to the Metropolis, and the natural result is that the market is glutted, and many works are kept going without profit or at a loss. But this state of matters can only continue for a time; many works will no doubt be closed shortly in both districts, the weakest must go to the wall. The Tyne and Wear colliery owners were never placed in such favourable circumstances as at present so far as freight is concerned. Large steamers are plentiful, and freights are low generally; sometimes coals are taken from these rivers at a little over 4s. per ton freight, and it is scarcely possible that coal companies sending coals by rail can compete with these rates. The opening of the New Dock at Hartlepool continues to attract much attention, as this dock not only adds largely to the area of the docks there but provides deeper water for the purpose of attracting a larger class of vessels to the port. The rise of Hartlepool as a commercial port, both for imports and exports, has been quite as remarkable as that of any other port on the east coast, and it is of course mainly due to the formation of docks. In 1831 the population of the place was only 2066, and at the present time it amounts to 40,000. The area of the docks there now will be 176 acres, including timber ponds. Hartlepool has for a long period imported large quantities of timber and other foreign products, and the exports of coals now reaches 1,124,651 tons. The port ranks as sixth in coal shipping ports of the kingdom.

As might be expected steel making continues to make progress in this district. New steelworks were started at Darlington on Saturday at Albert Hill. Rails were made of light section with the most perfect success. The company make steel on the old lines of the Bessemer system, but they have introduced all the most modern improvements, and the output of steel when the works are got into full operation is expected to reach 600 or 700 tons per week. This company have long been celebrated for the manufacture of iron rails, and this is still to be continued.

The very low price to which pig-iron has now fallen cannot fail to stimulate some of the branches of the manufactured iron trade, and also the exports of pig-iron to foreign ports. The foundry trade, which was getting dull, shows signs of revival. Amongst other firms that of Messrs. Richardson and Co., of Hartlepool Ironworks, have benefited, having received an order for 2000 tons of railway chairs for the North-Eastern Railway Company. One of the Tees firms has also received large orders for pipes.

The Iron Trade continues dull. There have been some enquiries, but little business done, as buyers even at the present very low rates look for a further fall. No. 3 is generally about 35s. 9d. to 36s. for prompt delivery. At the same time makers, or many of them, are in a fair position, as they are sending out iron at the higher rates contracted for three months ago, and little of the present make is thrown on the market; hence they are averse to making new sales, as the market price will not cover the cost of production. The shipments to the United States have been quiet during the greater part of the month, but are now proceeding in earnest, and many vessels are loading in the Tees. Shipments to Scotland have also been much better this week, and the trade is expected to increase with 9s. per ton difference between Cleveland and Scotch prices. The manufactured iron trade is dull, and prices are tending lower. Ship-plates are 6l. 10s.; bars and angles, 5l. 12s. 6d.

The Durham colliery mechanics are agitating for a return to the nine hours' system. This society some time ago were to a great extent disorganised, and during the late depression longer hours were enforced, but as the coal and coke trades have improved the men have now generally joined the Union of Colliery Mechanics, and they are anxious to return to the nine hours' system.

REPORT FROM THE FOREST OF DEAN.

June 3.—Local trades, instead of improving, appear to be going from bad to worse, so that complaints may be heard in every direction. The colliers are only very partially employed, and a reduction by discharges and paying off has been effected in various directions—at Cinderford Iron Works, at Forest Vale Works, and elsewhere. A notice also of 10 per cent. reduction of wages has just been posted up at Forest Vale Works, which will affect all working under contracts. Nor do matters improve at all in West Dean. The depression of trade is, however, working some benefit, seeing that it has led proprietors to mark the serious increase of public burdens in the way of rates. The people are going poorer and poorer, and the rates are increasing and becoming fearfully oppressive and burdensome. Our Forest parochial guides—Poor Law guardians and members of the School Board—appeared for a long time oblivious of the dangers ahead—especially the School Board—and spent the people's money freely; but now that the pipe has to be paid by yearly instalments, which involve the levying of heavy rates, their eyes are beginning to open to the fact that lavish and somewhat thoughtless expenditure brings penalties which are hard to be endured. For a district which has no highway rates, no paving nor lighting accounts to meet by rates, 5s. 6d. in the l., is a most unpleasant fact to contemplate. Very few anywhere—and the Forest is no exception to the rule—are able and economic administrators of public funds, but there are greater checks to extravagance or waste in many other places than in the Forest, because there is a greater proportion of the middle classes than in a rough mining district like this. But it is so far satisfactory that members of the School Board are beginning to feel their responsibilities, and are pointing out the dangers ahead to the Educational Department in their urging the erection of additional schools when the stoppage of works, collieries, and furnaces are producing semi-starvation to those who remain and driving the more plucky away to other districts and reducing the population. The Education Department, instead of attempting to force the School Board into ruinous expenditure, should listen to reason, and be rather guided by local opinion—for those who live on the spot are far better qualified to judge local necessities than a number of gentlemen in London, who possibly know nothing personally of the district. The School Board should protect the ratepayers, by opposing all unreasonable proceedings of the Education Department affecting this district. The people resident in the district know best what the district can bear, and we heartily commend the School Board for objecting and protesting against reckless procedure. The Board has not earned much commendation by its general administration hitherto, but in the stand it now makes against unwise outlay it deserves the hearty support of the ratepayers.

HOLLOWAY'S PILLS AND OINTMENT.—When the appetite falls and a sense of chilliness and nausea is experienced, nature points out that she requires assistance in throwing off some deleterious influence. An early resort to these remedies will soon have the desired effect and often avert an imminent illness. Hepatic congestions, flatulency, colic, and those very distressing flying pains in the limbs and back, so indicative of cold having been taken are rapidly removed by a few doses of these purifying pills in conjunction with the local infliction of the unguent. As summer advances such symptoms as these should never be neglected as serious illness often ensues, if the liver, kidneys and skin do not act freely—delay is dangerous.

Meetings of Public Companies.

RIO GRANDE DO SUL (BRAZIL) GOLD MINING COMPANY.

The first half-yearly general meeting of shareholders was held at the offices of the company, Finsbury-circus, on Wednesday, Mr. B. D. KERSHAW, C.E., in the chair.

Mr. J. A. MORGAN, F.G.S. (the secretary) read the notice calling the meeting.

The CHAIRMAN said: Gentlemen, I move that the report which has now been presented be adopted. The report gives every information as far as we know it at present. We should not have held this meeting had it not been that we were compelled to hold it according to the Articles of Association, as this is the regular time for holding a meeting. We are going on and proceeding cautiously in all we are doing. In foreign mines there are a great many things to attend to, and it is necessary to see that everything is straightforward. Our engineer, Mr. Hubert Bankart, left here on April 24, and arrived in Brazil about three weeks afterwards, and we have received a telegram in which he states that he found, in order to have everything perfectly clear and correct, it would be necessary to return to England, and he is now on his way home, as there are certain questions about titles, and the purchase cannot be completed until certain things are done in England. However, that will not delay operations, as Capt. Pooley left here on May 24 and took out all the machinery which we had from Messrs. Harvey, of Cornwall, and all the necessary things to start the Aurora Mine, which is the richest part of our property. He will go on once from Rio de Janeiro, and take all the goods which are shipped and insured to Rio Grande, and get everything ready; but, everything being ready, we shall not proceed to do any work until the title is perfectly clear, and there is not the slightest doubt about anything whatever. In starting a mining company, even where it is started under the most favourable auspices, and everything seems going on favourably, some little hitch occurs, and they are involved in difficulty, and perhaps ruin, and the foreigner, who has no knowledge of the law, and who does not know the country, and who has no friends, is at a disadvantage. We do not want the Rio Grande to go on in that way; therefore, although you may think we are delaying the proceedings a great deal by delaying action, yet we want to have everything perfectly clear, and I think you will endorse our action and opinion in that respect. (Cheers.) I do not think there is anything further to report to you, as we know of nothing further until Mr. Bankart arrives in England; but should anything special occur we shall send you a slip, or call you specially together, as no interim meeting will take place until six months from the present time; but as I have said, if it is necessary to consult the shareholders we shall call you together at once. There is no further business, except to elect an auditor in accordance with the Articles of Association, and I should like some one from the body of shareholders to propose a gentleman to be an auditor of this company at a remuneration of ten guineas per annum. —Mr. PHILIP EDINGER seconded the resolution.

Mr. J. BERGTHEIL (director): A great deal of delay has taken place, but it will be found in the end to the interests of the shareholders. I do not know whether you have been holders of mining shares in foreign countries, but it very often happens that after you have established yourselves fairly on your property somebody or other brings forward some claim or other. In the case of this particular property, it came to our knowledge after we had bought the property that certain concessionaries in Rio, although the property had been sold under the liquidator's hands, yet fancy that they can set up a claim against this company if the company commences to work the mine. As soon as the knowledge of this fact came to the notice of the directors we at once decided that we would only proceed with the operations when we were quite assured by the laws of Brazil, and by having our agent's report to us with the best legal opinion that he could get, that no such claims exist. (Hear, hear.) That is the principal point which we have known all the while, and which we have not wanted to go on working. At the same time we have lost no time, as the machinery is on its way, and by the last information we have got I believe the matter will be settled by the liquidators. We want to see the property completely in our possession over there. At any rate we shall not proceed until the title is clear, and we get the property free from any hitch. (Hear, hear.)

Mr. MARTINEAU, referring to the remark of Mr. Bergtheil that the company had bought the property, said no doubt what Mr. Bergtheil intended to say was that they had contracted to buy the property. —Mr. BERGTHEIL: That is so—contracted to buy the property.

The CHAIRMAN said he might add that a telegram had just been received from Mr. Bankart stating that the liquidators had full powers under the laws of Brazil and the commercial code to pay out of the estate, and give and take receipts, which are final; therefore the concessionaries were behind the liquidators, and the company dealt with the liquidators. Mr. Bankart also stated that counsel had given a written opinion that the concessionaries had no claim whatever upon the English company. But the directors wanted to be thoroughly satisfied that no action which the concessionaries could take would hinder the company in its working. The Brazilian counsel had also advised that the liquidators could give a clear and undisputed title. He might mention that the concessionaries had no claim whatever upon the freehold estate; but connected with the mine there was a large tract of many square miles which the company was to have the mining rights over. The concessionaries supposed they had some claim over these mining rights; but, of course, no one could possibly have any rights over the company's freehold property. The directors had also received a letter from Mr. Griffin, who was connected with the vendors of the company, who, under date of May 25, wrote—

"Extract from letter from Mr. John Charles Backhouse, April 22, 1880:—I think to guarantee to the concessionaries the same rights they had by their contract with the bank. Mr. Leseure has already petitioned the Brazil Court to cancel the authorisation given to us to transfer the company to an English company, but the Government sent him home about his business."

The SECRETARY said that the Mr. Leseure mentioned above was the only one hostile to the company.

Mr. BERGTHEIL: A power of attorney has been sent out. We are all partners, and it is right the shareholders should know everything and be prepared for everything. But you need not frighten yourselves. Your interest is in good hands, and if there is any hitch shall be the first to call you together and tell you the truth. So far I think it looks well, and we shall not part with any of the shares until we get the property.

The resolution for the adoption of the report was then put and carried.

On the motion of Mr. FRANK DAVIS, seconded by Mr. JOHN STANFORD, Mr. Philip Edinger was elected auditor, at a remuneration of 10 guineas per annum. Mr. EDINGER acknowledged his election, and said he hoped shortly to have good accounts to audit. He moved a vote of thanks to the Chairman and directors. —Mr. MARTINEAU seconded the resolution, which was put and carried, and the meeting broke up.

BERLANGA SILVER-LEAD MINING COMPANY.

The ordinary general meeting of shareholders was held at the offices of the company, Fenchurch House, Fenchurch-street, on Wednesday, Mr. ARTHUR A. LEVY in the chair.

Mr. F. O. SMITHERS (the secretary) read the notice convening the meeting and the minutes of the previous meeting, which were confirmed. The report and accounts were taken as read.

The CHAIRMAN said: I think we may congratulate ourselves upon the satisfactory character of the report and accounts, indicating as they do that we have a very valuable property, which should yield us eventually very handsome returns for our outlay. At the last ordinary meeting you were told from the chair that San José, or the south lode, was a very valuable discovery, that you might expect at least as good results from that quarter as from Santa Catalina. I am pleased to tell you that the return from this lode has already reached 70 tons per month; in short, our total output from the property has during the last two months been at the rate of 200 tons per month. This quantity we hope at least to maintain, if not to exceed, during the present year. In other words, we expect to raise a minimum quantity of 2400 tons this year, as against 1695 tons in 1879. Consequently if the price of lead ore, which is very low at present, does not recede any further our prospects for this year are most encouraging. I am glad to state that the accumulated stock of ore at the close of 1879 came to a good market. The shipment, as you have anticipated by the report, was delayed by the unprecedented wet weather, which entirely stopped the transport; nevertheless, the amount paid for the interest of money in consequence was more than amply compensated for by the high prices realised for the ore. The construction of the railway, when completed from Llerena, as stated in the report, will considerably enhance the value of our properties, as it will enable us to bring our ore to market at a cost of 1d. per ton less than at present, besides the regularity of transport will be assured. The directors have but one regret to express, that is as to the slight response made by the shareholders when applied to for the 5 per cent. bonds. It must be obvious to one and all that our capital is none too much, and that with a better flow of exchange greater results could be obtained. I will now make a few comments on the accounts. The amount of 6212 15s. 3d. standing to the debit in balance-sheet as per loans, interest, and commission, is, in fact, loans with 5 per cent. interest, and this I am glad to state has all been paid off by the sale of the stock of ore. On the credit side of the balance-sheet 661 17s. 11d. appears as paid for further mining rights. We have simply secured them to prevent others from working in our midst, which to say the least, would be inconvenient. As is customary and proper, we have written off the following for depreciation:—5 per cent. off buildings, 7 per cent. off machinery, and 10 per cent. off plant and tools, and off cost of mining property out of the profits the sum of 1714 12s. 6d., leaving the sum of 2232 5s. 5d. to the credit of revenue account, out of which, as stated in our report, a dividend of 7s. 6d. per share, free of income tax, to be declared. I now beg to move the following resolution:—"That the report of the directors, together with the balance-sheet and revenue account, as audited and made up to Dec. 31, 1879, be and are hereby received, approved, and adopted." —Mr. M. H. MOSES (a director) seconded the motion.

Mr. POOLE said he did not see any mention of any remuneration to the directors (Hear, hear.) and he asked whether the time had not arrived that the directors should receive something for their labour and anxiety? —The SECRETARY replied that the remuneration of the directors was a matter entirely in the hands of the shareholders, in accordance with the Articles of Association.

Mr. POOLE said that at the proper time he would be pleased to move a resolution on the subject.

The report and accounts were then unanimously adopted.

The CHAIRMAN moved, "That a dividend of 7s. 6d. per share, free of income tax, for the half-year ending Dec. 31 last be and is hereby now declared." —Mr. M. H. MOSES seconded the motion, which was also adopted *nem. claus.*

On the motion of Mr. POOLE, seconded by Mr. A. MOSES, a sum of 3000 was awarded to the directors for their services up to Dec. 31, 1879.

Mr. M. H. MOSES said, in accordance with the Articles of Association, one of the directors retired each year, and this year the retiring member of the board was Mr. D. D. KERSHAW, C.E. Mr. Kershaw had been a most active member of the board, and he did not know what the company would have done without him. He had, therefore, much pleasure in proposing his re-election. —Mr. POOLE seconded the proposition, which was carried.

Mr. PRICK suggested that the remuneration of the directors should be fixed at two guineas for each board meeting attended, and thought that would probably be more satisfactory than voting a lump sum each year.

Mr. MOSES remarked that the directors would not have accepted any remuneration if the company had not been so successful, and he thought, with the permission of the shareholders, it would be as well to bring the question forward at the annual meetings.

Mr. PRICK moved the re-appointment of the auditors—Messrs. Spain, Andrews, and Spain—and that they should be paid 35 guineas for their services during the past year. —Mr. CUTBERT BURNUP seconded the motion, which was adopted.

Mr. ANDREWS, in returning thanks for the reappointment of his firm, said he never saw accounts so well kept as they were in this company, both in Spain and in London. They reflected the highest possible credit on all concerned in making them up. The CHAIRMAN said, in view of the satisfactory result of the past year's operations, the least they could do was to accord a cordial vote of thanks to the general manager, Mr. Pittar, and the staff in Spain, and to Mr. George, the consulting engineer of the company, for their assiduous services in the interests of the company. The board had but one feeling as to the value of those services, which had conducted so much towards the earning of the dividend just declared, and, therefore, he had much pleasure in proposing this vote of thanks. (Hear, hear.) —Mr. F. D. HICKMAN seconded the proposition, which was adopted.

Mr. SAMUEL GEORGE, M.E., in acknowledging the compliment, said they had met under most favourable circumstances in connection with these mines. From the time that he occupied the post of mining engineer to the company he had devoted a great deal of time to it, as it was his pet mine, as the directors had heard him say from time to time, and the more he saw of the property the greater was his faith in it. He believed the results of the current year's operations would show an increase over those of the past year. The mines, which were being opened as fast as they could judiciously open them, never looked better than at the present time. In all their operations the necessity of economising their resources was kept steadily in view, and this was a very important feature in connection with mining. (Hear, hear.) He had been connected with mining since he was 15 years of age, and in many other companies in which he had been engaged as consulting engineer he had seen money spent which might well have been saved. In this company they were all working harmoniously together. They had got a good property, and he believed the shareholders would never have cause to regret their connection with the company.

Mr. PITARC also briefly returned thanks for the vote on behalf of the staff in Spain.

PRICK asked whether the board could give any information with regard to the unutilised portion of the property they had in Spain? He supposed they had not capital enough to work it.

Mr. M. H. MOSES said the Pastora estates were about three miles long, and if they had 50,000,000 spare capital these could probably be worked very advantageously; but until they had that amount, or some company would take the estates from them on certain terms, this company could not work them. A good deal of money had been spent on them, in the expectation that ore would be found near the banks, and the mines would be worked at such great depth that they could not work with the capital available, work the estates to a profit. It was hoped that at no distant date the directors would have something to lay before the shareholders which would meet with their approbation, but meanwhile the subject was under consideration. —Mr. CUTBERT BURNUP asked whether anything was being done towards opening up the property a little to the west of the San Catalina, on the other side of the river.

Mr. GEORGE replied that operations in that direction had never been stopped. Their object was to get as far west as they could in order to avoid the dangers of the river. After his last visit to the property he recommended the directors to secure a piece of land further west than where there were old Roman workings, and he, with the agents of the mine, had marked out the place where the main shaft should be placed, west of the river, and quite free of it. They had almost secured the land, and they would then only have to explore that part of the land west of the river. He expected that in the course of time their main operations and dressing works would be conducted considerably to the west of the river.

On the motion of Mr. CUTBERT BURNUP, seconded by Mr. A. MOSES, a vote of thanks was passed to the Chairman and directors.

The CHAIRMAN returned thanks for the compliment, and also for the remuneration which had been voted, adding that the directors had devoted their best energies to the services of the company, and he thought the labourer was worthy of his hire. (Hear, hear.) —The meeting then closed.

DON PEDRO NORTH DEL REY GOLD MINING COMPANY.

The eighteenth ordinary general meeting of shareholders was held at the City Terminus Hotel, Cannon-street, on Monday,

General D. DOWNING in the chair.

Mr. J. E. DAWSON (the managing director) read the notice convening the meeting, and the report was taken as read.

The CHAIRMAN said—I need not say much, gentlemen, on this occasion. I am sorry that we have not anything so satisfactory as we could have wished; but the report is so very full that we have nothing further to give you in addition to what is conveyed in the report. The only matter worthy of any mention is a letter received this morning, but I do not see that that makes matters more cheerful to us. Our great misfortune has been the failure of the 60-ft. wheel. It did not seem to make any approach towards improvement, and, therefore, we thought it best to get some substitute at once for the 60-ft. wheel. We took the best advice we could get under the circumstances, and became satisfied that a water-ram would be the best thing to substitute for the wheel, and we were assured on good authority that when we got that up it will fully take the place of the wheel, and give us every satisfaction in point of working. I think I need not say anything more to take up your time, but anything you require to ask will be answered immediately by the managing director. I shall conclude by proposing, "That the report and statement of accounts presented at this meeting be received and adopted."

Mr. BRAY seconded the proposal, and stated that the managing director (Mr. Dawson) had been five months in Brazil, and would no doubt give the shareholders the result of his experiences at the mine; therefore, he would not stand between him and the meeting. As the shareholders were aware the directors had severed their connection with Capt. Vivian, who appeared to be of a very sanguine temperament, and had more than once held out great expectations, which unfortunately had not been realised. The present state of the 60-ft. wheel having been a source of much anxiety, the board consulted Mr. Darlington, who was recommended to them, and he had suggested to them the adoption of a hydraulic machine, which was now in construction, and would be able to do the work of the 60-ft. wheel. When it was fixed and in operation at the mine it would no doubt mark a turning point in the history of the company, and be the means of realising moderate dividends in future.

Colonel WELLES said he was of opinion that if the company got over the difficulties connected with the pumping there was still sufficient ore in the mine to make it a paying concern eventually.

Mr. J. E. DAWSON observed that it would be a good starting point in the remarks he had to make if he submitted a statement showing the present financial position of the company. (Hear, hear.) They had in London at the present time cash at the bankers 42044, and the board had that morning received by the mail advices which enabled them to make up the assets to the end of April, and state that the funds at Rio amounted to 26084 14s. 7d. They might naturally assume that out of the 26084 about 6000 had been absorbed up to that date; consequently, they possessed in England 40000 and in Brazil 20000. In order to give the shareholders every information he had for two or three days not only carefully read through the diary he kept in Brazil, but he had read his correspondence with the board, and the annual reports of the directors and the managers for some time past. He had been told that he had made a very gloomy report upon his visit to the mine, of which he had given no hope. His report was certainly gloomy, because the circumstances at the mine were gloomy, but there was no justification for anyone saying that. It was believed that the difficulties connected with the pumping would with Mr. Darlington's assistance be got over. The shareholders would remember that in August last the directors called them together, and laid before them a telegram, dated May 25, which led them to expect that the working of the stopes at the 40 fm. level would be resumed a month from that date. The funds became exhausted, and the shareholders were called together, and upon the understanding that the operations were to be confined to sinking the mine, so as to get to the 40 fm. level, the shareholders came forward and subscribed 10,000. In October the advices received clearly showed that the shareholders' instructions were not being carried out, and that the "choke" was continuing. Perhaps Capt. Vivian could not help that, but he could help continuing the working of the mine where it was not paying. The directors thereupon deputed him (Mr. Dawson) to go to the mine, and he started on October 8. He arrived on November 7, and at once called Captain Vivian's attention to the fact that the miners had not got through the "choke," but he did not get any satisfactory reason for the operations not being curtailed as directed by the directors. During the month of November he continued to urge Capt. Vivian to get to the stopes, and to cut down the expenditure. The result was a reduction of 711, but he got tired of receiving empty promises from Capt. Vivian, and at last he was compelled for the time to undertake the management himself. Capt. Vivian was at the time very unwell, and as his agreement with the company expired he was accordingly relieved from further service as manager. The directors had gone somewhat into detail concerning costs, because for years they had been urging economy and reduction of expenditure, and had been told it could not be done. When he was on the spot, armed with full power, he found great difficulty in getting Captain Vivian to economise, but owing to his position on the board in England he was able to induce the mining captains and heads of departments to cut down expenses, otherwise economies could not have been effected. He won them to his side, and by going into matters with them he was able to cut down the expenses without interfering with the efficiency of the mine. In three weeks, too, he got through the "choke." (Hear, hear.) He was afraid that after he left matters would get into their old groove again, but he was now happy to say that the advices for April showed that the costs had been further reduced from 22000 to 11290. When he left the mine in January the monthly costs were 13584, and now, as he said, they were only 11290. These reductions could be continued, and the mine worked efficiently at a reduced cost, but it was absolutely necessary that the responsible head at the mine should look into every detail for himself. The practices had been for Capt. Martin and others to manage the mine, and Mr. Heilbuth had had the management of the surface works. Capt. Vivian had

simply given orders, and he had entered the mine on an average only once a month. Mr. Heilbuth was a conscientious man, but he could do nothing but carry out the orders of his superior. Had he and others made known in England the state of affairs at the mine they would not have been dismissed, because at the time Capt. Vivian was sending home his brilliant reports the shareholders would naturally have waited for the good results promised, and have got rid of Mr. Heilbuth. The moral of the whole matter was that the company ought to send someone out to Brazil every one or two years. (Hear, hear.) As to the quality of the lode, in January they raised 1400 tons, which were raised under great difficulties, as there was a great deal of debris. The average yield was a little more than 3 oits. to the ton. In February there was also a great deal of debris, and the yield was reduced to nearly 2 oits. per ton. In March there was less debris, and the produce went up accordingly. The company possessed a very extensive lode, but at the present time only one-third of it was opened. The company dared not open more while the pumping machinery was in a shaky state. From working a small piece of the lode they had made a profit of 4000, which meant paying all the deadwork expenses; therefore, with improved pumping machinery there was every probability of the profits being increased in future. There was only one other subject to which he wished to refer—the fact that the mine had not been proved in depth. In all the reports, which he had gone through carefully, there was but one tale—that the lode was just below the 40 fm. level, but at the 50. A cross-cut having increased the value of the mine was untrue. If they had a good engine and were able to rely on the pumping appliances a great point would be gained, but the ground had to be opened up. With improved appliances the output of ore could be increased, and at half the cost. 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continued. At present it seemed to him they were letting the interest slip out of their hands. (Hear, hear.) He was exceedingly sorry a parcel of tin had been sold from Wheal Pevor to the Penpol Company. (Hear, hear.) This week and last week tin was under 47, and 57, per ton below what the smelters were asking for it. They had splendid properties, but they were worth nothing unless they got a fair price for their produce, and the sooner they shut up the better, and left them in the hands of those who kicked them about. He hoped some step would be taken to promote the welfare of the Cornish miner.

The CHAIRMAN thought that before continuing the discussion it would be well to pass the accounts.

A resolution was accordingly adopted passing the report and accounts, and declaring a dividend of 25s. a share.

The CHAIRMAN, in resuming the subject introduced by Mr. Waddington, said that gentleman had referred to one or two parcels of tin being sold to the Penpol Company. He might tell them that in Wheal Pevor they were in the habit of selling to the highest purchaser. He did not think any one firm could control the market to the extent Mr. Waddington had suggested; if this firm dominated over affairs, as intimated, it did not say much for the smelters of Cornwall, who were alluded to as millionaires, whilst the firm in question only had a nominal capital of 10,000. He was persuaded that the decline in prices was largely due to the falling-off in the price of other metals, more particularly iron, which had gone down nearly one-half, to say nothing of the state of trade generally. Next he would have them recollect that the Americans had for the present ceased to buy tin, whilst a short time ago they were large purchasers. He thought things would not be much better until after the harvest, and in the meantime he would ask them whether it would be advisable to sell their tin only in such quantities as would meet the labour costs, and stock the remainder. The executive would not care to do this on their own responsibility. If the shareholders gave their consent, that would be a great relief to the agents. If tin went below the stocked price, the executive would perhaps have a great deal of blame if they acted on their own responsibility.

Mr. WADDINGTON contended that there was no analogy between the prices of copper or iron and tin. There was a large quantity of copper in stock, and an immense quantity of low quality stuff was sent from Spain, which ruined the market. Iron was produced in different countries in Europe, as well as abroad, and there were great changes in the way of using steel rails, &c., and probably it would be a long time before they saw iron at a good price. But tin had decreased in stock during the depression something like 30 or 40 per cent., and it was in the power of any person with 200,000, to go and put tin up to over 100, per ton. With regard to the stocking of tin, unfortunately the producers never had money in hand to enable them to carry on the mine without troubling the bankers. If they could stock their tin to avail themselves of a good market, there would not be the fluctuations that there were at present, and they would be able to give their men better wages.

Mr. F. W. MICHELL believed there was a good deal in what Mr. Waddington said respecting the price of tin as compared with other metals. Take iron, the great staple commodity of metals. They knew very well that there were a number of furnaces out of blast at all times, and these furnaces had only to be put into blast to produce any quantity of iron, and glut the market in any way they thought proper. Then there was the great revolution in the substitution of steel for iron—a very important thing. Then lead and copper were found in great quantities in many places. Some little time ago, when tin was at a very low price indeed, it was a very useful thing for people connected with tin mining to ask the question of a tin smelter, a man supposed to know something of the tin trade, "When are we to have a better price for tin?" The answer was, what right had they to expect a better price when stocks were so large and were constantly increasing; it was only a question of supply and demand. Nobody could controvert that in any way; but that did not apply now. Stocks were going down, and so was the price, and what became of the doctrine that had been taught before? It was all fudge. There must be some other influences at work, and these influences seemed to him to arise from the fact that there was a very low price indeed, and then hoisted the price up, and when they accomplished that, sold all their stocks, and then set to work to bring down the prices again to their present low state, and it might go even lower. When these people get enough tin in their hands again they would, perhaps see tin going up the ladder again, but it might be the fall of the year before that took place. In the meantime the producers were knocked about in any way these people thought proper. He proposed that for the present the executive should be authorised to sell only such quantities of tin from Wheal Pevor as would meet the costs.

Mr. WADDINGTON said that there was a great deal of tin in America, and supposing that were true, the consumption in America was 1250 tons a month; but the fact was, and he had it on good authority, there were only 3000 tons of tin in America—two months' consumption. He would second Mr. Michell's motion.

The CHAIRMAN said this was a matter which had come unexpectedly before them, and although there was a large attendance of shareholders there, some others not present might wish to have something to say about it, and it was a question whether they were justified in coming to a hasty conclusion that day. His idea was that if the statistics were worth anything they were in their favour, but they had seen that the statistics were not worth the paper they were written upon. They found a lot of tin turned out of some places which they did not know were in existence, and if they took the figures they might be led astray. He thought the agents could watch the market. They had done well by holding their tin on several occasions, but if tin went lower they might be losers by it.

Mr. M. COCK believed they would do better by going on selling their tin as it was produced.

Mr. CHRELL said while one would be willing to stock the tin to get a better price if possible, yet at the same time he knew that certain shareholders and others would look upon it as a suspicious act. Another thing the executive of that mine had hitherto sold the produce of it to the greatest advantage to the shareholders. He thought they should set upon the suggestion of the Chairman, and for the next sixteen weeks at least leave the matter, as it had been hitherto, in the hands of the executive, who would watch the market, and do the best they possibly could. At another meeting the matter might be decided in the form of a resolution such as had been proposed.

Mr. FERNANDEZ believed that lately there had been a great difficulty in learning what price they were going to get for their tin when they sent it to the smelting-house. To carry on a smelting business must require small capital. If they sent their tin that day they would not get their money for it till the next Saturday, and in the meantime the tin was sold in London perhaps a day or two after it was received from the mine; and then it was sold at what price the smelter chose to give for it. They way the business was managed did not say much for the people who they trusted.

The CHAIRMAN said since the last meeting he had been asked for a parcel of tin in the early part of the week, and sent it on the following day, and they did not get the best price for it, and this referred to one of the tin producers of the Cornish companies. Anything was better than that. The practice of tendering had been adopted in some instances. Whether that would be better for mines remained to be proved.

Mr. MICHELL said the mode of selling tin had always been a most unsatisfactory one. The idea of a man taking tin, or any other commodity, and throwing it into another man's hut, and saying "How much will you give me for that?" was utterly unbusiness-like. If anybody in any other branch of business did such a thing he would be looked upon as a fool. They were worse than that at present, for the reply to the question they asked the question, "We cannot give you any price at all; we will let you know next week." If they considered that a satisfactory mode of business, he did not.

Mr. THOMPSON did not believe in the accuracy of the published statistics, and said he did not think they could be satisfied with the way the smelters dealt with them in regard to the price of tin. If tin were in his own hands he certainly should not take it to the smelter's premises unless he knew what was to be given for it. (Hear, hear.) He did not think anything but tin was sold in this way. The adventurers had the remedy in their own hands, and the sooner they made use of it the better. In the tin trade the producers had their monthly meetings, and why should there not be similar meetings of the tin producers of Cornwall? (Applause.) Why should not the various mines appoint a committee to discuss with the smelters what was the proper price to be given for tin, and if the smelters would not give a fair price, let the tin be withheld. (Hear, hear.) He thought also it would be worth while for Cornishmen to make an effort to get correct statistics relative to the stocks. They could do this by combining and appointing an agent at the Straits, in Australia, America, and London, who could report to the home producers. (Applause.) He suggested that Mr. Michell should withdraw his resolution, and leave the selling of the tin in the hands of the manager and purser.

Mr. MICHELL had no objection to withdraw the resolution provided they acted in the spirit of it. His only object in proposing it was to relieve the purser and manager of all responsibility.

It was agreed to leave the matter in the hands of the executive, to use their best discretion.

The CHAIRMAN remarked that ever since they had been selling large quantities of tin they had been doing so well as their neighbours. If the market was rising they had kept their tin, and the shareholders had had the advantage of it. Capt. White said himself would give the market as much attention as they had done before. They had seen the result of stocking tin in some cases, and a great deal of it had been done away with interest to the bankers. The bankers had the benefit of it. At Wheal Owles they might have sold their stocked tin at from 60s. to 62s. per ton, and they had lost 20s. a ton on it within the last six months. No agents were justified in recommending a thing of that sort. Coming nearer home, they found mines stocking tin, and had it now. He did not think it was right.

On the motion of Mr. WADDINGTON, seconded by Mr. P. BLANEY, a vote of thanks was passed to the Chairman, and this concluded the business.

The adventurers afterwards dined together, and after dinner the usual loyal toasts were drunk. In proposing "The Duke and Duchess of Cornwall," the CHAIRMAN (Mr. T. Pryor) said they all knew the reception their Royal Highnesses had at Truro a few days ago, and if ever they came again they would be still more heartily received. He was delighted to hear in that room that Her Majesty the Queen had been graciously pleased to confer upon the Mayor of Truro, from whom none could be more worthy, the honour of knighthood. This was not only an honour to a man universally respected, but an honour to the county. (Applause.)

Mr. HARRINGTON proposed "Continued Success to Wheal Pevor." They all regretted the drop in the price of tin during the last few weeks—a drop which would venture to say was not anticipated for one moment by the wisest men in Cornwall a few months since. (Hear, hear.) The present price of tin was as great an anomaly as ever existed, and as difficult to remedy as any that ever presented itself. He had endeavoured during the last few weeks to gather up the wisdom of those better informed than himself, and whilst in London recently he made it a point to ascertain, both from the "bulls" and the "bears," as far as he possibly could what was the future with regard to tin. Well, he was not very sanguine, nor yet quite the contrary, but the result of his enquiries led him to this conviction, that if they would only wait a little longer they would have a much better price for tin. (Applause.) He was not a very large speculator, but after gathering up the opinions of those whom he thought well qualified to give advice he rather increased his interest in Cornish mining. He was told that if anyone could possibly wait a few months longer in all probability there would be a better price for tin. The price was a matter of uncertainty, and he did not think the wisest men in London knew what the price of tin would be even three months hence. As to Wheal Pevor, it was a source of congratulation that, notwithstanding the low price, they were able to show a profit of 75s. He found that they had sold about the same quantity of tin as the last quarter, and it had realised no less than 322s., besides their tin levings, which brought 96s. Looking around, they saw what was once a barren waste a few

years ago, bringing in 30s. a year to the lords, was now bringing them in 1500s. a year. But it was not only the lords who benefited. Some 300 or 400 men were employed there. During the last four months they had paid 3450s. for wages, at the rate of 10,200s. a year, besides the thousands paid to merchants. By a comparatively speaking small investment they were receiving about 15,000s. a year profit as shareholders. He thought that was a source of congratulation to everyone interested in the mine, and he was sure everyone would wish success to Wheal Pevor. He coupled with the toast the names of the Chairman and Capt. White, the manager.

The CHAIRMAN (after a few additional complimentary remarks from Mr. BLANEY) responded. It had been a source of great satisfaction to them during the last two or three years that they had been able to pay dividends when most mines had had to make heavy calls. There was a time when for five years they were in that position themselves, never meeting without making a call of from 20s. 6d. to 18s., but during the whole of the late depression Wheal Pevor had maintained its position, and given satisfaction to its shareholders. They called up during those five years 7s. 11s. per share—22,650s. They paid last year 50s. 6d., and with the dividend declared that day they had paid this year 62s. 5d., or at the rate of 50 per cent. on the capital of the mine. That he thought spoke wonders. He thought from the report which Capt. White read to them during the business proceedings they might look forward in Wheal Pevor to successive dividends. Of course, the amount of these dividends would depend upon the price of tin. The mine was right, and the higher the price of tin the better would be the dividend they would receive. (Applause.)

Capt. WHITE, in responding, said he was glad to meet them there that day, but he had expected to meet them under more favourable circumstances. At the last meeting, instead of the price of tin going down, he thought it would be the other way. If that had been the case they would have been able to give them a much higher dividend than had been declared that day. Had the price remained even as it was then—54s. 10s. per ton average—they would have given them at least a 35s. dividend that day. As to the mine, they had in Wheal Pevor as good a mine that day as ever they had. They had never had so many productive points before as they had now in the mine. They had four strings to their bow instead of one, and he knew they had three more lodes in the set which they intended to see. He knew there were three more lodes south of their present working. They must, however, speak of what they had got. As regarded their middle lode, he believed it would turn out equal to any of the other lodes. Then the new lode, which they expected to intersect, and which they had recently cut, would also, he believed, turn out a very productive lode; in fact, they were in a tin district, right in the run of it for about ½ mile from north to south, and wherever they had seen these lodes up to the present they had been productive. Their south lode they expected to cut in about four weeks time at the engine-shaft, and he had no reason to think that it would not be productive here also. The 80 was 45 fms. west of the shaft, and that level had worked through a lode in width from 4 to 6 fms., and how much larger he could not say, because they had not driven it wider than the level, and the average produce of the stuff was as good as in any other level that they had. Consequently he could see no earthly reason why the lode in the 90 fathom level should not turn out as productive as the 80 fathom level and other levels. As regarded their reserves and other things, he had heard it hinted, even in that account-house, that there were parties saying that they were working out their mine. He believed that was their seventh dividend that day. Their first dividend was paid in August 1878, and a similar report was given out then, but Wheal Pevor had been able to stand its own since then, through good report and through evil report. It did not matter what parties said about the mine; he believed it was only for market operations. Wheal Pevor did not deserve to be reflected upon in this way. They had a mine there second to none, and this he believed they had proved. It had been rumoured that if they agreed to stock the tin it would be a proof that they had no tin, and they had finished raising it. It was an abominable shame to suggest such things, and was quite an insult. The selling of the tin, he believed they did the right thing that day by leaving it with the agents. The thing had been done, he believed, pretty fairly in the past. Up to within the last two months they had sold their tin before it left the mine, and he considered that the proper thing to do. Within the last two months tin went up 4s. one day, and Mr. Pryor and him arranged to send their tin off to catch this rise, but the price was down again before they could get the tin to the smelting-works. They could hardly catch an improvement recently if they had the tin on the road.

Mr. F. W. MICHELL, in response to the toast of his health, said Wheal Pevor was the pioneer mine of the district—a district that was already becoming most productive and largely worked. As far as the permanency of Wheal Pevor was concerned, the more they developed the mine the more permanent it seemed to become. When they commenced they had only the idea of one lode in the set—they had no direct evidence of any more; but they soon came to the second lode; soon after that to the third lode, and now they were positively working four lodes, all of which were productive—not, perhaps, on every point productive, but more or less on certain points in them. There were also in that mine the Great North Down copper lodes, running from one side to the other, a distance of 250 fms., never reached yet, and these in the early part of this or latter part of the last century produced in the adjoining set 60,000 tons of copper ore per annum, when the standard was not particularly high, but rather low in fact. These lodes had not been touched in Wheal Pevor. It could be scarcely credited, but those who were acquainted with the heave between the mines would see the reason. However, they found the lodes as productive for tin westward as they had for copper eastward. He had no reason to believe but that working eastward the lodes would be found as productive for tin as westward. He had no doubt there would be measures taken to prove these lodes without incurring any great expense out of their surplus profits. He had no doubt if they explored the ground it would be attended with a considerable result as a copper speculation.

The names of Messrs. Thompson, Heard, Waddington, Pentreath, Blamey, Farley, Williams (St. Agnes), Hitchins, jun., and the Rev. Mr. Olivey, were coupled with complimentary toasts. The health of Captain King, the second agent, was also proposed, and the meeting then broke up.

THE COPPER TRADE.

Messrs. HENRY R. MERTON and Co. (Leadenhall-street, June 1)

issue the following Statistics of Copper:—

Stocks in Europe:		
Chili ores and regulus, Liverpool and Swansea (equal to fine). Tons	466	
Chili bars in Liverpool	24,401	
Chili bars in Swansea	6,807	
Chili ingots in Liverpool	50	
Chili ingots in Swansea	50	
Foreign copper (chiefly Australian) in London	5,040	
Foreign copper	282	
English copper in London	50	
Chili bars and ingots and barilla in Havre	3,986	
Other copper in Havre	790	
Stocks of copper contained in other foreign ore and Spanish Precipitate (fine)	3,634	
Afloat, and chartered from Chili to Europe (advised by mail):		
Ore and regulus (equal to fine)	2,843	
By cable, ore and regulus (Havre)	9,275	
Bars and ingots	200	
Afloat from Australia (advised by mail):		
Fine copper	975	
By cable: Fine copper	1,658	
Total	64,923	

Price of bars, 56s. 5s.; Wallaroo, 71s.; English tough, 61s.

Messrs. HENRY ROGERS, SONS, and Co. (London, June 3) write:—Chili bars varied in price only 2s. per ton during the last month; but the demand for English bars was so great, and the price so high, that the price of tin below the price ruling on May 1 had to be conceded. Ores also gave way 1s. per unit, and for the first fortnight of May the trade generally was so limited that the price of bar copper might very well have receded to 50s. per ton. Some strong cash buying, however, set in towards the close of the month, and the price of bars from being 55s. soon touched 56s. This buying, however, failed to influence purchasers of English, and for select and manufactured also the requirements are still but small, and are met by sellers far more on the basis of 55s. for bars than any higher figure. In yellow metal throughout the past month there has been next to nothing doing, although competition has driven prices down below cost. We publish our usual monthly statistics:—The imports of copper into England for the first four months of the following years were—1876, 24,705 tons; 1877, 29,744; 1878, 28,280; 1879, 31,824; 1880, 33,865 tons. The exports for the same periods were—1876, 15,764 tons; 1877, 17,204; 1878, 19,380; 1879, 18,485; 1880, 18,361 tons. The position from June 1, 1879, to June 1, 1880, was as follows:—

	Price.	Stock on hand.	Advised by mail only.
1879—June 1	£55 0 0	41,269	46,432
July 1	58 0 0	41,877	50,447
August 1	53 10 0	42,395	51,011
September 1	54 10 0	43,229	52,479
October 1	60 0 0	41,095	52,681
November 1	66 0 0	38,716	49,955
December 1	66 10 0	41,115	53,165
1880—January 1	66 0 0	42,159	54,119
February 1	73 10 0	37,997	51,809
March 1	71 0 0	38,000	50,266
April 1	65 10 0	42,065	54,944
May 1	65 0 0	42,744	54,689
June 1	56 0 0	42,078	54,608

And the comparative positions at the same date of the past four years with the present:—

	Price.	Stock.	Stock, including afloat and chartered.	Advised by mail only.
1876—June 1	£78 0 0	22,682	30,997	30,997
1877—June 1	69 0 0	29,342	34,844	34,844
1878—June 1	64 10 0	37,410	42,809	42,809
1879—June 1	58 0 0	41,269	49,432	49,432
1880—June 1	56 0 0	42,078	54,608	54,608

The charters to May 31, 1880, were 19,500 tons, against 20,600 tons in 1879.

Messrs. HARRINGTON, HOBAN, and Co. (Liverpool):—Chili copper charters for first half of this month were 300 tons, and for the second half 800 tons fine, making the total charters so far this year 19,450 tons, against 20,600 tons for the same period in 1879 and 18,350 in 1878. Since our last issue considerable sales of bars have been made at 55s. 5s. to 57s. per ton, according to brand and position. Quotations to-day being 56s. 10s. to 57s. per ton. The sales of furnace material comprise 110 tons English precipitate at 11s. 6d. to 11s. 9d., 913 tons Cape and Mexican ore at 11s. 6d. to 11s. 9d., and 2000 tons Betts Cove ore at 11s. per unit. Import of Chili copper during the past fortnight, one ton fine, against 11,620 tons fine same time last year. Deliveries of tin, 715 tons fine, against 1158 same time last year. Arrivals here during the fortnight of West Coast, S.A., produce:—Rosa y Isabel, from Placo, 220 tons ores; Coronel, 40 tons ores. At Swansea:—N.V.

Stocks of copper (Chilian and Bolivian) in first and second hands, likely to be available, we estimate at—

	Ores.	Regulus.	Bars.	Ingots.	Barilla.
Liverpool	730	710	24,401	60	—
Swansea	—	—	6,807	88	—
Total	730	710	31,208	136	—

Representing about 31,810 tons fine copper, against 32,525 tons May 14; 28,952 tons May 30, 1879; 20,302 tons May 31, 1878; 15,527 tons May 31, 1877. Stock of copper contained in other foreign ore and Spanish precipitate, 3624 tons fine. Stock of Chili copper in Havre, 3937 tons fine, against 4269 tons May 30, 1879. Stock of Coro Coro barilla in Havre 85 tons fine, against 475 tons May 30, 1879. Stock of Chili copper afloat and chartered for to date, 17,600 tons fine, against 15,000 tons May 30, 1879. Stock of foreign copper in London, chiefly Australian, 5300 tons fine, against 7670 tons May 30, 1879.

Messrs. FRENCH and SMITH (London, June 3) write:—The charters from the West Coast, as advised by cable, were very light during the past month, so also were the deliveries here, leaving statistics in a more unfavourable position than at the end of April. Large holdings have been quitted in the fear of further losses, while buying has been confined to a few to whom low prices have been fascinating. Charters from the West Coast were for the first half of May 300 tons; for the second half, 800 tons. The imports and exports, January to April (four months), were, by Board of Trade Returns:—

	1880.	1879.	1878.
Ore	30,470	23,674	24,140
Regulus	16,590	14,812	11,490
Copper	14,861	61,544	13,833
Exports:			
Foreign raw	5,431	4,460	4,435
English raw	4,507	5,271	7,138
Manufactured, including yellow metal and brass	10,180	10,191	9,012

Messrs. RICHARDSON and Co. (June 1) write:—The stocks of Chili copper produce remaining unsold at Swansea on May 1 were—Ore, 730 tons; regulus, 710 tons; and copper, 7332 tons. There have been no arrivals, and the only private sales were 525 tons of copper. The present stocks are—Ore: Chili, 730 tons; Cape ore, 600 tons; New Quebrada, 1521 tons; Newfoundland—Betts Cove, 2000 tons; Spanish Precipitate, &c., 454 tons; Portuguese, ditto, 59 tons; Italian ore, 1000 tons; Australian, 255 tons; British, 435 tons. Total unsold at Swansea: Ore, 7054 tons; regulus, 710 tons; copper, 6807 tons. These totals represent about 7850 tons of fine copper. There have been two private sales of Cape ore—400 tons at 11s. 7½d., and 300 tons at 11s. 3d. per unit. Values during the past month have continued to fall. It is to be hoped that we have come to the end of this depression, and that we shall soon experience activity and much better prices. The Chili charters for May have been light, being only 300 tons of bars between France and England for the first fortnight, and for the second half 800 tons, composed of 500 tons in bars and ingots, and 300 tons pure in ores and regulus. The Mary Jose has just arrived with 900 tons of Bolivian copper produce.

THE TIN TRADE.

Messrs. STRAUSS and Co. (London, May 31) issue the following Statistics of tin:—

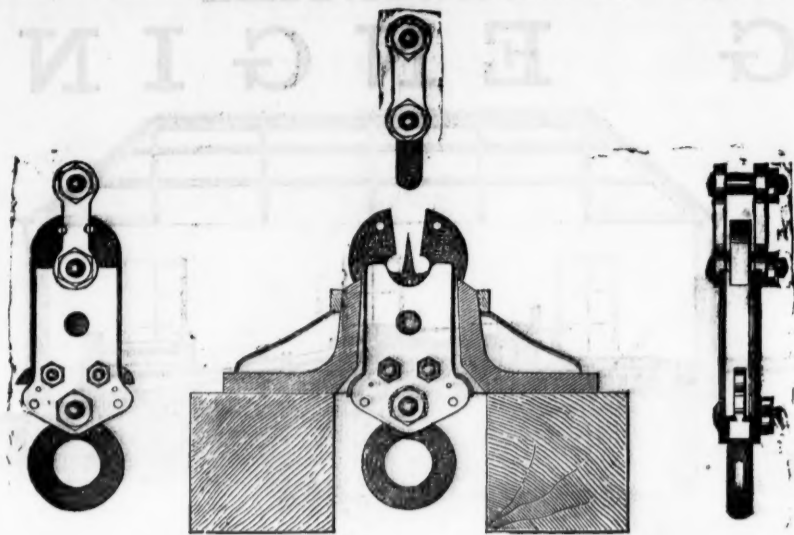
	May 31, 1880.	May 31, 1879.	May 31, 1878.
Straits and Australian, spot	7,030	10,188	9,356
„ „ „ landing	203	470	454
Straits, afloat	325	370	321
Australian afloat	1,065	1,139	2,000
Banca, on warrants	1,476	1,629	1,499
Billiton, spot	1,612	1,905	1,698
„ afloat	1,230	1,130	1,230
Australian tin in Holland	200	200	426
Total	13,141	17,431	16,879
Prices of Straits	£72 10	£68 5	£63 0
Deliveries during month in London	965	1,104	1,081
„ „ „ Holland	751	777	475
Total	1,746	1,881	1,556
Shipments during the month from Straits	325	325	650
„ „ „ Australia	650	650	—
During first five months,			
Shipments from Straits to London	2,415	2,135	1,775
Shipments from Australia to London	2,538	2,506	4,120
Deliveries of tin in London	5,500	5,437	5,209
Deliveries of tin in London and Holland	6,481	6,222	7,639
Banca in Trading Company's hands and afloat, 1162 tons.			

Messrs. EBELING and HAVELAAR (Rotterdam, May 31) state:—The closing month has not differed much from its predecessor, and we consequently have again to report a very dull market for tin. Prices have been tending steadily downward, and are now fully 4½ below our quotations at the end of April. Speculators have been buying somewhat more freely of late, the reduced price drawing a good deal of attention. Our tin month's deliveries are again very satisfactory, and the statistical position of the article is one of considerable strength at present. The Dutch Trading Company's third sale in 1880 took place on the 27th inst., when 20,162 slabs Banca were sold from 43½ fl. to 43½ fl., average 43½ fl. The next sale will take place towards the end of July. There was a slight rally in Banca at the beginning of the month, the price advancing to 43½ fl. Since then, with a very limited demand, we have declined to 43½ fl., at which figure there are now buyers. Several large selling orders of Billiton, both of parcels on the spot and for forward delivery, have enhanced the depression, and from 48½ fl. and 49 fl. the price has fallen to 43 fl., forward deliveries selling at 43½ fl. On Tuesday, June 8, a public sale, comprising 13,000 piculs, will take at Batavia.

The position of Banca tin in Holland on May 31, according to the official Returns of the Dutch Trading Company, was—

Returns of the Dutch Trading Company, 1880.			
	1880.	1879.	1878.
Import in May	10,640	10,923	15,884
Total five months	33,486	67,268	43,122
Deliveries in May	11,313	14,300	8,701
Total five months	56,598	51,325	48,695
Stock second hand	47,251	64,926	47,980
Unsold Stock	20,603	23,435	12,011
Total stock	67,854	88,361	59,991
Afloat	8,300	10,900	10,400
Statement of Billiton:—			
Import in May	6,729	714	5,000
Total five months	34,233	43,996	53,425
Deliveries in May	12,019	9,431	10,619
Total five months	39,885	36,651	38,034
Stock	51,602	50,957	53,721
Afloat	9,000	16,000	10,000
Quotation, May 31—Banca	43½ fl.	39½ fl.	37½ fl.
„ „ „ Billiton	43 fl.	39½ fl.	37½ fl.

SAFETY DETACHING HOOKS—RAMSAY AND FISHER'S.



The following is a description of Ramsay and Fisher's hook, alluded to in Mr. Logan's paper, of which we published an abstract in last week's Journal:—

The construction and action, as shown in the drawings, are extremely simple. Two independent jaws are contained in a box of great strength; they are separately hung and separately actuated, and in ordinary working are kept firmly in position by means of the two keys shown projecting slightly at the sides. The keys rest upon two copper rivets, but they are so constructed as to exert no pressure upon the copper rivets until an overwind takes place. When the

hook passes up into the strong cast-iron ring fixed into the headgear the two keys come simultaneously into contact with the conical lower end of the ring, are pressed downwards cutting the copper rivets, and pressing the lower end of the jaws together, and opening the top ends, so as to catch upon the ring and release the shackle and rope. As the rope disengages it draws up between the jaws a wedge rivetted by a small copper rivet to links on the top shackle. The act of cutting this rivet is sufficient to firmly fix the wedge between the two jaws, securely locking them on to the ring, and making it absolutely certain that the hook catches the ring properly,

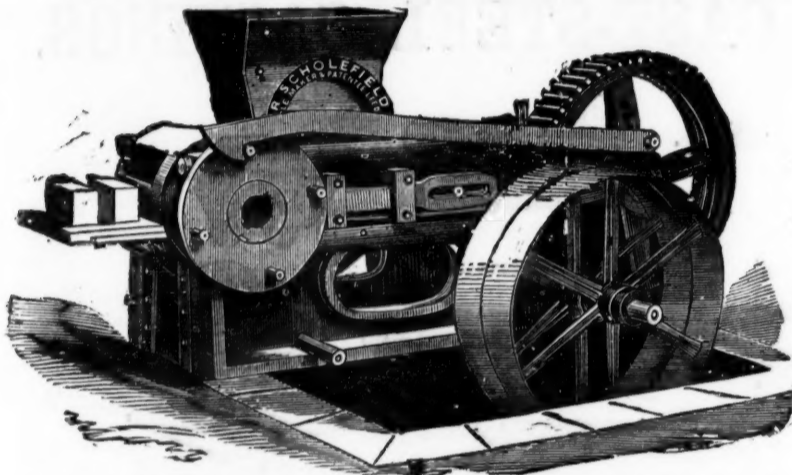
and perfectly impossible to shake it off again by any amount of jerking and shaking. The tops of the jaws are kept extra large, and a hole bored in each, as shown. After an overwind it is only the work of a few minutes to couple a shackle on to each jaw, knock down the wedge, and by tightening the rope with the engine the jaws close, and the cage is safely lowered on the keps.

By placing a little tallow or grease round the edge of the box the working parts are effectually protected from all damp, and kept in perfect order ready for action. Each jaw being separately actuated, and it requiring that both keys should be struck and both rivets should be cut before disengagement takes place, it may be safely said to be impossible to disengage it in ordinary working. The fall back is in no case more than 1 in., and partial overwind cannot take place to disengage the hook, as the jaws must be in position to grip before the rivets are cut. There is not the slightest tendency to open when lowered on slack chains at pit bottom, or in any of the jerking or shaking which takes place at the shaft. The patentees have made very searching experiments both as to the action and the strength of these hooks, and are satisfied that they have now arrived at the maximum of strength with the minimum of weight. The quality of material used is claimed to be the very best of its kind only, and there is evidence of great care and taste in the designs of the hook.

CORNISH PUMP-ENGINES.—The number of pump-engines reported for April is 16. They have consumed 1406 tons of coal, and lifted 10·4 million tons of water 10 fms. high. The average duty of the whole is, therefore, 49,900,000 lbs. lifted 1 ft. high by the consumption of 112 lbs. of coal. The following engines have exceeded the average duty:—

Carn Brea—76 in.	Millions	53·1
Dolcoath—85 in.		51·2
Mellancar—Gundry's 80 in.		51·3
West Basset—Grenville's 70 in.		60·8
West Basset—Thomas's 60 in.		56·0
West Tolgus—Richard's 70 in.		51·3
West Wheal Seton—Harvey's 85 in.		60·0
West Wheal Seton—Rule's 70 in.		62·5

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LATEST PATENT BRICK-MAKING MACHINE.

R. S. begs to call the attention of all Colliery Owners in particular to his PATENT SEMI-DRY BRICK MACHINE, and the economical method of making bricks by his patent machinery from the refuse that is taken from the pits during the process of coal-getting, which, instead of storing at the pit's mouth (and making acres of valuable land useless) is at once made into bricks at a very small cost, by R. S.'s Patent Brick-making Machinery. If the material is got from the pit hill, the following is about the cost of

production, and the hands required to make 10,000 pressed bricks per day:—

2 men digging, each 4s. per day ...	£0 8 0
1 man grinding, 4s. 6d. per day ...	0 4 6
1 boy taking off bricks from machine, and placing them in barrow ready for the kiln, 2s. per day ...	0 2 0
1 boy greasing, 1s. 6d. per day ...	0 1 6
1 engine-man, 6s. per day ...	0 5 0
1 man wheeling bricks from machine to kiln, 4s. per day ...	0 4 0

Total cost of making 10,000 pressed bricks ... £1 5 0, or 2s. 6d. per 1000.

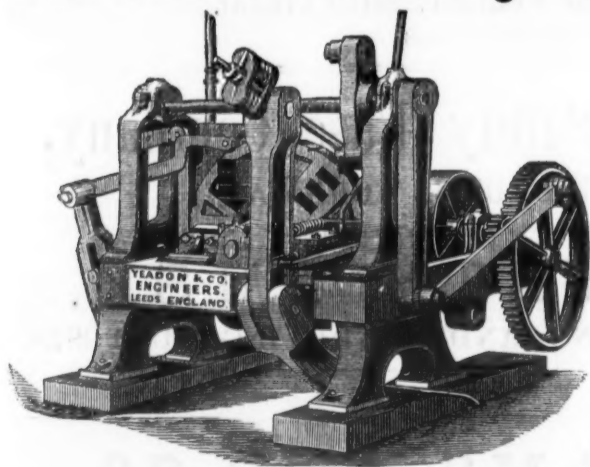
(SETTING AND BURNING SAME PRICE AS HAND-MADE BRICKS.)

N.B.—Where the material can be used as it comes from the pit, the cost will be reduced in digging.

As the above Machinery is particularly adapted for the using up of shale, bind, &c., it will be to the advantage of all Colliery Owners to adopt the use of the said Brick-making Machinery.

THE MACHINES CAN BE SEEN IN OPERATION AT THE WORKS OF THE SOLE MAKER AND PATENTEE DAILY.
SCHOLEFIELD'S ENGINEERING & PATENT BRICK MACHINE WORKS
KIRKSTAL ROAD LEEDS.

PATENT BRIQUETTE MACHINE.



GREAT SAVING NO WASTE COAL.
NO COLLIERY SHOULD BE WITHOUT.

These Machines utilise smudge or small coal by making it into Briquettes or blocks of compressed fuel at the rate of 36,000 per day. The cost of preparing, mixing, and making is under One Shilling per ton. The Briquettes sell readily for Locomotives, Household, or other purposes. Full particulars on application to

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I continue to be perfectly satisfied with the work performed by the two patent Briquette Machines as well as with that of the Steam Engine, Mixer, &c., which you supplied a few months ago for the manufacture of compressed slack Briquettes, and that I can recommend them as being the best machines I know of, after having carefully studied all the Briquette Machines constructed at home and abroad.

Messrs. Yeadon and Co., Leeds.

I continue to be highly satisfied with the Briquette Machines which you supplied in 1877. They do their work very well, and produce the Briquettes very regularly, and of a good quality.

(Signed)

G. FAGES, General Manager.

Messrs. Yeadon and Co.

I have the honour to inform you that we are entirely satisfied with the erection and working of the two Briquette Machines, as well as the Steam Engine and Mixing Apparatus.

QUAREGNON (BELGIUM), SEPTEMBER 13TH, 1879.

(Signed)

A. FRANEAU, Managing Director to the Rieu du Cœur et de la Boule Collieries, Quaregnon



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This Turbine is applicable to all heights of fall. It works immersed in the tail-water, so that no part of the fall is lost, and the motion of the Wheel is not affected by floods or back-water.

References to places where it is at work will be given on application to—

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REFERENCES.

In England—The London Mining Journal, and leading Cornishmen.

In California—The Mining and Scientific Press, and principal Miners.

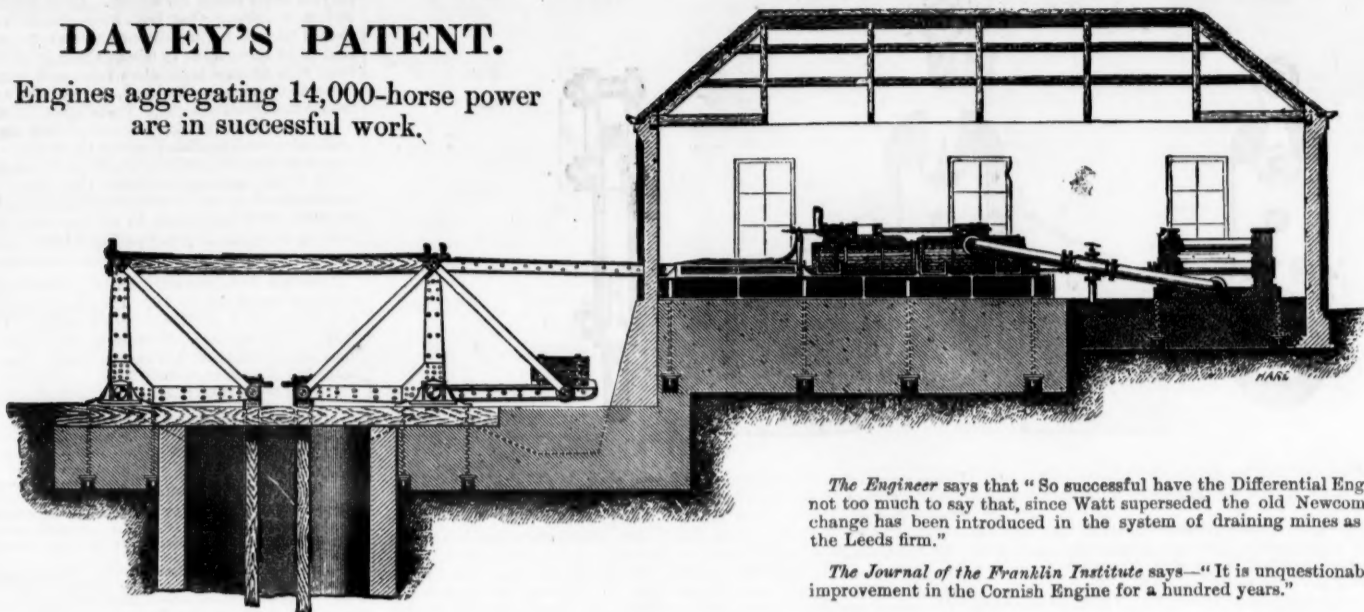
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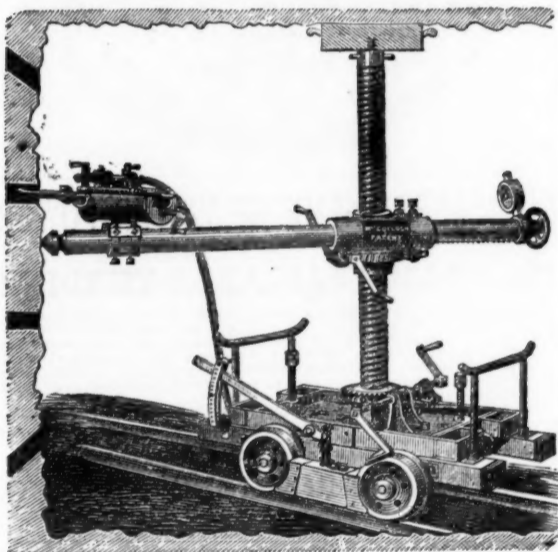
The Journal of the Franklin Institute says—"It is unquestionably the most marked improvement in the Cornish Engine for a hundred years."

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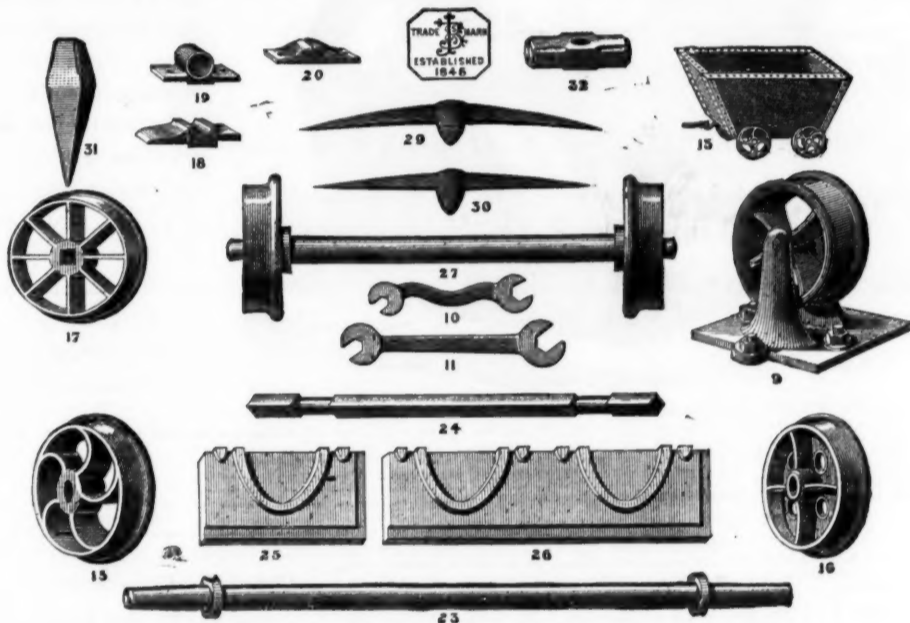
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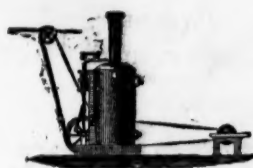
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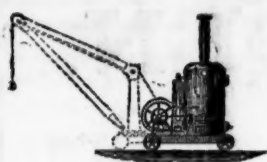
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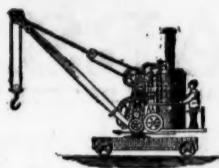
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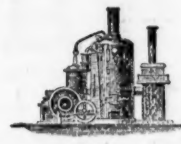
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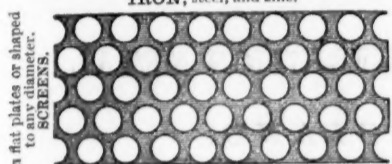
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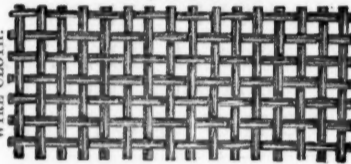


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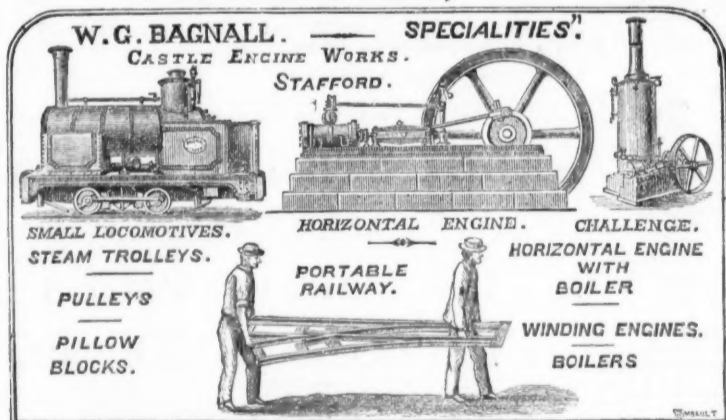
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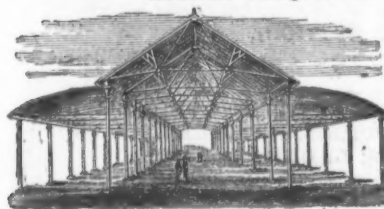
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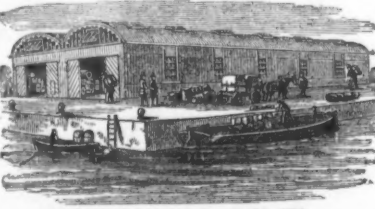
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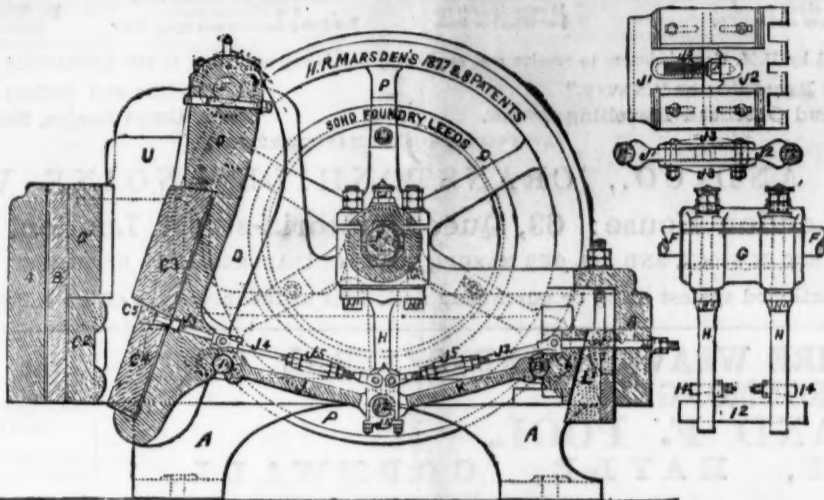
NEW PATENT WROUGHT-IRON CONNECTING
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60

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A SAVING OF FIFTY-FIVE HANDS BY THE USE OF
ONE MEDIUM-SIZED MACHINE.

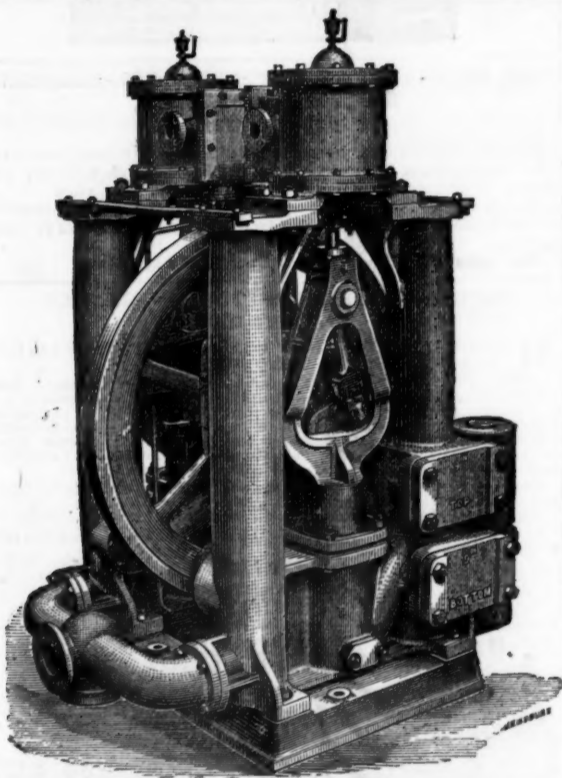
BLAKE'S STONE BREAKER.—Statement made by the Man-
aging Director of the St. John del Rey Mining Company,
Mr. John Hockin, with regard to six months' practical
working of Blake's Stone Breaker, affording facility for
judging of the relative economy of machine and hand
labour in this kind of work, and also of the cost of getting
the Stone Breaker to work in difficult places. The price
paid to Mr. Marsden for the machine referred to by Mr.
Hockin was £180, and adding to this the cost of engine,
carriage, and fixing, the aggregate cost to the company
of the Breaker in working order was £500. By this outlay
the company is enabled to dispense with the labour of 55
people, the value of which is £600 per annum. The cost
of working the machine could not be more than the wages
of about five men (the machine requires but one man to
feed it, so that the rest would be for engineer, fuel, oil,
&c.), and allowing for interest on outlay and for renewal
when necessary, the saving must be enormous.—Mining
Journal.

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